Rochester Electronics®

Datasheet

54LS242, 54LS243

Transceivers with Three-State Outputs

Rochester Electronics Manufactured Components

Rochester branded components are manufactured using either die/wafers purchased from the original suppliers or Rochester wafers recreated from the original IP. All re-creations are done with the approval of the Original Component Manufacturer (OCM).

Parts are tested using original factory test programs or Rochester developed test solutions to guarantee product meets or exceeds the OCM data sheet.

Quality Overview

- ISO-9001
- AS9120 certification
- Qualified Manufacturers List (QML) MIL-PRF-35835
    - Class Q Military
    - Class V Space Level
- Qualified Suppliers List of Distributors (QSLD)
    - Rochester is a critical supplier to DLA and meets all industry and DLA standards.

Rochester Electronics, LLC is committed to supplying products that satisfy customer expectations for quality and are equal to those originally supplied by industry manufacturers.

The original manufacturer's datasheet accompanying this document reflects the performance and specifications of the Rochester manufactured version of this device. Rochester Electronics guarantees the performance of its semiconductor products to the original OCM specifications. 'Typical' values are for reference purposes only. Certain minimum or maximum ratings may be based on product characterization, design, simulation, or sample testing.

FOR REFERENCE ONLY

INCH-POUND

MIL-M-38510/328C
18 November 2003
SUPERSEDING
MIL-M-38510/328B
23 March 1984

MILITARY SPECIFICATION

MICROCIRCUITS, DIGITAL, BIPOLAR, LOW-POWER SCHOTTKY TTL, BUS TRANSCEIVERS WITH THREE STATE OUTPUTS, MONOLITHIC SILICON

Inactive for new design after 18 April 1997.

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product herein shall consist of this specification sheet and MIL-PRF-38535.

1. SCOPE

1.1 Scope. This specification covers the detail requirements for monolithic silicon, low-power Schottky TTL, bus transceivers with three state outputs. Two product assurance classes and a choice of case outlines and lead finishes are provided for each type and are reflected in the complete part number. For this product, the requirements of MIL-M-38510 have been superseded by MIL-PRF-38535, (see 6.3).

1.2 Part or Identifying Number (PIN). The PIN should be in accordance with MIL-PRF-38535, and as specified herein.

1.2.1 Device types. The device types should be as follows:

Device type	Circuit
01	Quadruple inverting bus transceivers with three state outputs
02	Quadruple noninverting bus transceivers with three state outputs
03	Octal noninverting bus transceivers with three state outputs
04	Octal inverting bus transceivers and registers with three state outputs
05	Octal inverting bus transceivers and registers with three state outputs

1.2.2 Device class. The device class should be the product assurance level as defined in MIL-PRF-38535.

1.2.3 Case outlines. The case outlines should be as designated in MIL-STD-1835 and as follows:

Outline letter	Descriptive designator	Terminals	Package style
A	GDFP5-F14 or CDFP6-F14	14	Flat pack
C	GDIP1-T14 or CDIP2-T14	14	Dual-in-line
D	GDFP1-F14 or CDFP2-F14	14	Flat pack
R	GDIP1-T20 or CDIP2-T20	20	Dual-in-line
S	GDFP2-F20 or CDFP3-F20	20	Flat pack
L	GDIP3-T24 or CDIP4-T24	24	Dual-in-line
2	CQCC1-N20	20	Square leadless chip carrier

Comments, suggestions, or questions on this document should be addressed to: Commander, Defense Supply Center Columbus, ATTN: DSCC-VAS, 3990 East Broad St., Columbus, OH 43216-5000, or emailed to bipolar@dscc.dla.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at www.dodssp.daps.mil.

1.3 Absolute maximum ratings.

Supply voltage range ..... -0.5 V dc to +7.0 V dc
Input voltage range ..... -1.5 V dc at -18 mA to +5.5 V dc
Storage temperature range ..... -65° to +150°C
Maximum power dissipation (P_D) 1/
Device type 01 and 02 ..... 297 mW dc
Device type 03 ..... 522.5 mW dc
Device type 04 and 05 ..... 907.5 mW dc
Lead temperature (soldering, 10 seconds) ..... +300°C
Thermal resistance, junction to case (θ_{JC}):
Cases A, C, D, R, S, L, and 2 ..... (See MIL-STD-1835)
Junction temperature (T_J) 2/ ..... +175°C

1.4 Recommended operating conditions.

Supply voltage (V_{CC}) ..... 4.5 V dc minimum to 5.5 V dc maximum
Minimum high level input voltage (V_{IH}) ..... 2.0 V
Maximum low level input voltage (V_{IL}):
Device types 01, 02, and 03 ..... 0.7 V dc
Device types 04 and 05 ..... 0.5 V dc
Normalized fanout (each input) 3/ ..... 20 maximum
Case operating temperature range (T_C) ..... -55°C to +125°C
Width of clock pulse (t_{CLK})
Device types 04 and 05 ..... 20 ns
Setup time before clock (t_{SETUP})
Device types 04 and 05 ..... 20 ns
Hold time (t_{HOLD})
Device types 04 and 05 ..... 0 ns

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3, 4, or 5 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3, 4, or 5 of this specification, whether or not they are listed.

1/ Must withstand the added P_D due to short-circuit test (e.g., I_{OS}).
2/ Maximum junction temperature shall not be exceeded except for allowable short duration burn-in screening conditions in accordance with MIL-PRF-38535.
3/ The device shall fanout in both high and low levels to the specified number of inputs of the same device type as that being tested.

2.2 Government documents.

2.2.1 Specifications and Standards. The following specifications and standards form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-PRF-38535 - Integrated Circuits (Microcircuits) Manufacturing, General Specification for.

DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-883 - Test Method Standard for Microelectronics.
MIL-STD-1835 - Interface Standard Electronic Component Case Outlines

(Copies of these documents are available online at http://assist.daps.dla.mil;quicksearch/ or www.dodssp.daps.mil or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Qualification. Microcircuits furnished under this specification shall be products that are manufactured by a manufacturer authorized by the qualifying activity for listing on the applicable qualified manufacturers list before contract award (see 4.3 and 6.4).

3.2 Item requirements. The individual item requirements shall be in accordance with MIL-PRF-38535 and as specified herein or as modified in the device manufacturer's Quality Management (QM) plan. The modification in the QM plan shall not affect the form, fit, or function as described herein.

3.3 Design, construction, and physical dimensions. The design, construction, and physical dimensions shall be as specified in MIL-PRF-38535 and herein.

3.3.1 Logic diagrams and terminal connections. The logic diagrams and terminal connections shall be as specified on figure 1.

3.3.2 Truth tables. The truth tables shall be as specified on figure 2.

3.3.3 Schematic circuits. The schematic circuits shall be maintained by the manufacturer and made available to the qualifying activity and the preparing activity upon request.

3.3.4 Case outlines. The case outlines shall be as specified in 1.2.3.

3.4 Lead material and finish. The lead material and finish shall be in accordance with MIL-PRF-38535 (see 6.6).

3.5 Electrical performance characteristics. The electrical performance characteristics are as specified in table I, and apply over the full recommended case operating temperature range, unless otherwise specified.

3.6 Electrical test requirements. The electrical test requirements for each device class shall be the subgroups specified in table II. The electrical tests for each subgroup are described in table III.

3.7 Marking. Marking shall be in accordance with MIL-PRF-38535.

3.8 Microcircuit group assignment. The devices covered by this specification shall be in microcircuit group number 9 (see MIL-PRF-38535, appendix A).

4. VERIFICATION

4.1 Sampling and inspection. Sampling and inspection procedures shall be in accordance with MIL-PRF-38535 or as modified in the device manufacturer's Quality Management (QM) plan. The modification in the QM plan shall not effect the form, fit, or function as described herein.

4.2 Screening. Screening shall be in accordance with MIL-PRF-38535 and shall be conducted on all devices prior to qualification and quality conformance inspection. The following additional criteria shall apply:

a. The burn-in test duration, test condition, and test temperature, or approved alternatives shall be as specified in the device manufacturer's QM plan in accordance with MIL-PRF-38535. The burn-in test circuit shall be maintained under document control by the device manufacturer's Technology Review Board (TRB) in accordance with MIL-PRF-38535 and shall be made available to the acquiring or preparing activity upon request. The test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in test method 1015 of MIL-STD-883.

b. Interim and final electrical test parameters shall be as specified in table II, except interim electrical parameters test prior to burn-in is optional at the discretion of the manufacturer.

c. Additional screening for space level product shall be as specified in MIL-PRF-38535, appendix B.

4.3 Qualification inspection. Qualification inspection shall be in accordance with MIL-PRF-38535.

4.4 Technology Conformance inspection (TCI). Technology conformance inspection shall be in accordance with MIL-PRF-38535 and herein for groups A, B, C, and D inspections (see 4.4.1 through 4.4.4).

4.4.1 Group A inspection. Group A inspection shall be in accordance with table III of MIL-PRF-38535 and as follows:

a. Tests shall be as specified in table II herein.

b. Subgroups 4, 5, and 6 shall be omitted.

4.4.2 Group B inspection. Group B inspection shall be in accordance with table II MIL-PRF-38535.

4.4.3 Group C inspection. Group C inspection shall be in accordance with table IV of MIL-PRF-38535 and as follows:

a. End-point electrical parameters shall be as specified in table II herein.

b. Subgroups 3 and 4 shall be added to the group C inspection parameters for class B devices and shall consist of the tests, conditions, and limits specified for subgroups 10 and 11 of group A.

c. The steady-state life test duration, test condition, and test temperature, or approved alternatives shall be as specified in the device manufacturer's QM plan in accordance with MIL-PRF-38535. The burn-in test circuit shall be maintained under document control by the device manufacturer's Technology Review Board (TRB) in accordance with MIL-PRF-38535 and shall be made available to the acquiring or preparing activity upon request. The test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in test method 1005 of MIL-STD-883.

TABLE I. Electrical performance characteristics.

Test	Symbol	Conditions $-55°C \le T_C \le +125°C$		Device type	Limits		Unit
					Min	Max	
High level output voltage	V_{OH1}	V_{CC} = 4.5 V, V_{IH} = 2.0 V,	V_{IL} = 0.7 V	01, 02, 03	2.4		V
		I_{OH} = -3 mA	V_{IL} = 0.5 V	04, 05	2.4		"
	V_{OH2}	V_{CC} = 4.5 V, V_{IH} = 2.0 V,	V_{IL} = 0.5 V	01, 02, 03	2.0		"
		I_{OH} = -12 mA	V_{IL} = 0.5 V	04, 05	2.0		"
High level output voltage	V_{OL}	V_{CC} = 4.5 V, V_{IH} = 2.0 V,	V_{IL} = 0.7 V	01, 02, 03		0.4	"
		I_{OL} = 12 mA	V_{IL} = 0.5 V	04, 05		0.4	"
Input clamp voltage	V_{IC}	V_{CC} = 4.5 V, I_{IN} = -18 mA, T_C = +25°C		All		-1.5	"
High level input current	I_{IH1}	V_{CC} = 5.5 V, V_{IN} = 2.7 V		All		20	µA
High level input current	I_{IH2}	V_{CC} = 5.5 V, V_{IN} = 5.5 V		All		0.1	mA
Inhibited state output leakage current	I_{OZH}	V_{CC} = 5.5 V, V_{OUT} = 2.7 V		01, 02		40	µA
				03		20	
				04, 05		20	
	I_{OZL}	V_{CC} = 5.5 V, V_{OUT} = 0.4 V		01, 02, 03		-200	µA
				04, 05		-400	
Low level input current	I_{IL}	V_{CC} = 5.5 V, V_{IN} = 0.4 V		01, 02, 03	0	-240	µA
				04, 05	0	-200	
Short circuit output current	I_{OS}	V_{CC} = 5.5 V 1/		All	-40	-225	mA
Supply current	I_{CCH}	V_{CC} = 5.5 V		01, 02		38	mA
				03		70	
				04, 05		145	
	I_{CCL}	V_{CC} = 5.5 V		01, 02		50	mA
				03		90	
				04, 05		165	
	I_{CCZ}	V_{CC} = 5.5 V		01, 02		50	mA
				03		95	
				04, 05		165	
Propagation delay time, low to high clock to bus	t_{PLH1}	V_{CC} = 5.0 V, R_L = 110Ω, C_L = 50 pF		04, 05	2	39	ns
Propagation delay time, high to low clock to bus	t_{PHL1}			04	2	52	ns
				05	2	59	
Propagation delay time, low to high bus to bus	t_{PLH2}			01, 02	2	25	ns
				03	2	22	
				04, 05	2	30	ns

See footnote at end of table.

TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions $-55°C \le T_C \le +125°C$	Device type	Limits		Unit
				Min	Max	
Propagation delay time, high to low bus to bus	t_{PHL2}	V_{CC} = 5.0 V, C_L = 50 pF, R_L = 110 Ω	01, 02	2	30	ns
			03	2	22	
			04	2	33	
			05	2	39	
Propagation delay time, low to high select (with bus input high) to bus	t_{PLH3}		04	2	59	ns
			05	2	78	
Propagation delay time, high to low select (with bus input high) to bus	t_{PHL3}		04	2	52	ns
			05	2	59	
Propagation delay time, low to high select (with bus input low) to bus	t_{PLH4}		04	2	72	ns
			05	2	59	
Propagation delay time, high to low select (with bus input low) to bus	t_{PHL4}		04	2	39	ns
			05	2	59	
Propagation delay time, disabled to high level output	t_{PZH1}		01, 02	2	36	ns
			03	2	58	
Propagation delay time, disabled to high level output enable to bus	t_{PZH2}		04	2	78	ns
			05	2	72	
Propagation delay time, disabled to high level output direction to bus	t_{PZH3}		04	2	65	ns
			05	2	59	
Propagation delay time, disabled to low level output	t_{PZL1}		01, 02	2	46	ns
			03	2	58	
Propagation delay time, disabled to low level output enable to bus	t_{PZL2}		04	2	91	ns
			05	2	78	
Propagation delay time, disabled to low level direction to bus	t_{PZL3}		04	2	85	ns
			05	2	65	
Propagation delay time high level to disabled output	t_{PHZ1}		01, 02	2	46	ns
			03	2	39	
Propagation delay time high level to disabled output enable to bus	t_{PHZ2}		04	2	52	ns
			05	2	65	
Propagation delay time high level to disabled output direction to bus	t_{PHZ3}		04	2	46	ns
			05	2	52	
Propagation delay time, low level to disabled output	t_{PLZ1}		01, 02	2	39	ns
			03	2	39	
Propagation delay time, low level to disabled output enable to bus	t_{PLZ2}		04	2	52	ns
			05	2	52	
Propagation delay time, low level to disabled output direction to bus	t_{PLZ3}		04	2	46	ns
			05	2	46	

1/ Not more than one output should be shorted at one time.

TABLE II. Electrical test requirements.

MIL-PRF-38535 test requirements	Subgroups (see table III)	
	Class S devices	Class B devices
Interim electrical parameters	1	1
Final electrical test parameters	1*, 2, 3, 7, 8, 9, 10, 11	1*, 2, 3, 7, 8, 9
Group A test requirements	1, 2, 3, 7, 8 9, 10, 11	1, 2, 3, 7, 8, 9
Group B electrical test parameters when using the method 5005 QCI option	1, 2, 3, 7, 9, 10, 11	N/A
Group C end-point electrical parameters	1, 2, 3, 7, 9, 10, 11	1, 2, 3
Additional electrical subgroups for group C periodic inspections	N/A	10, 11
Group D end-point electrical parameters	1, 2, 3	1, 2, 3

*PDA applies to subgroup 1.

4.4.4 Group D inspection. Group D inspection shall be in accordance with table V of MIL-PRF-38535. End-point electrical parameters shall be as specified in table II herein.

4.5 Methods of inspection. Methods of inspection shall be specified and as follows:

4.5.1 Voltage and current. All voltages given are referenced to the microcircuit ground terminal. Currents given are conventional and positive when flowing into the referenced terminal.

4.6 Inclusion with other detail specifications. For qualification and quality conformance inspection purposes, devices covered by this specification may be treated as though they were included on the same detail specification as devices covered by MIL-M-38510/324. In addition, if a manufacturer is already qualified for type 32402, and if the respective devices on this specification (MIL-M-38510/328) are designed and manufactured identically (same die, same process, same screening) in all respects except electrical testing, then device type 32802 may be qualified by conducting only group A electrical tests with approval of the qualifying activity including subgroups A-10 and A-11, and submitting data in accordance with MIL-M-38510, appendix D (i.e., groups B, C, and D tests are not required).

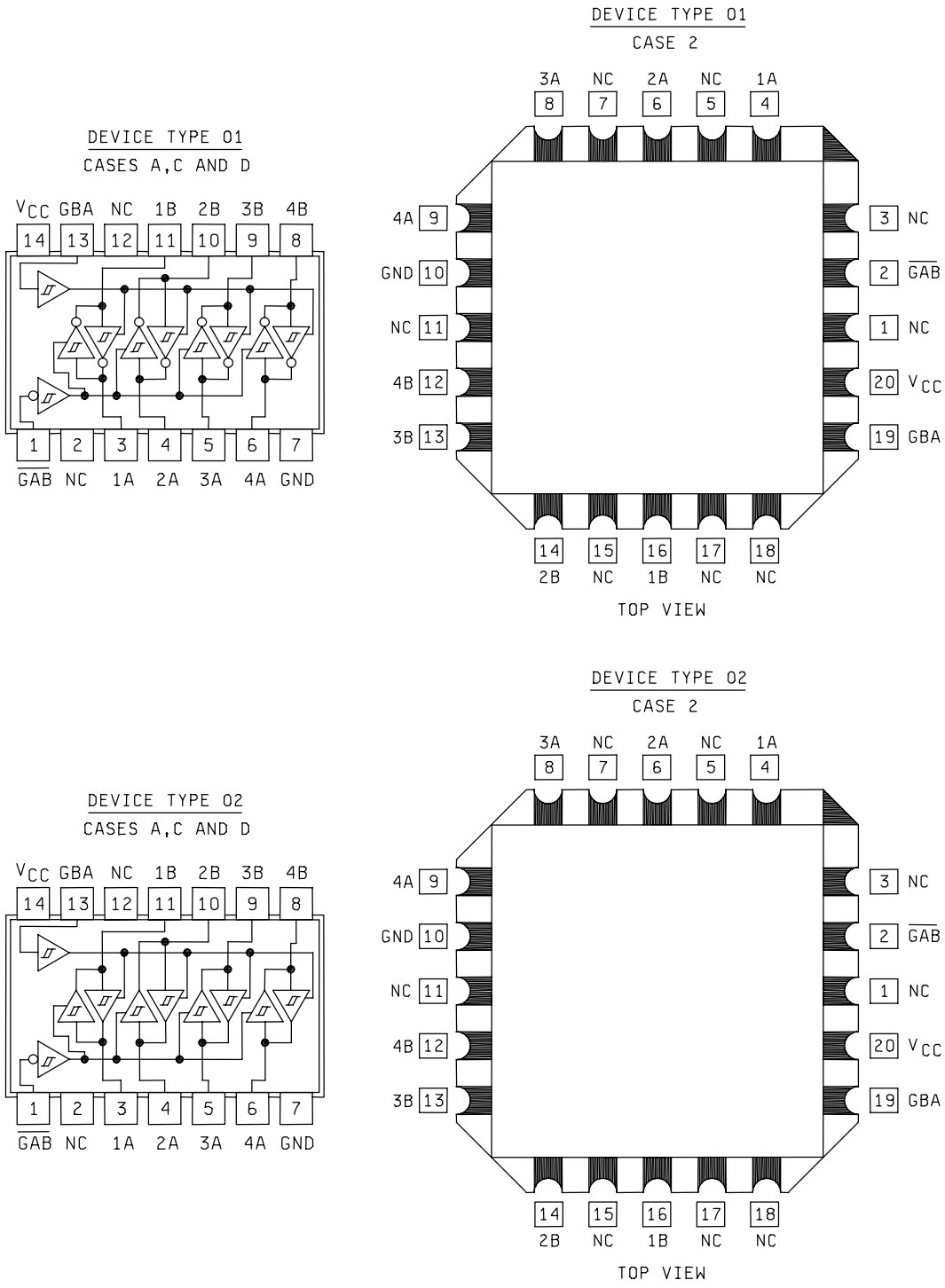
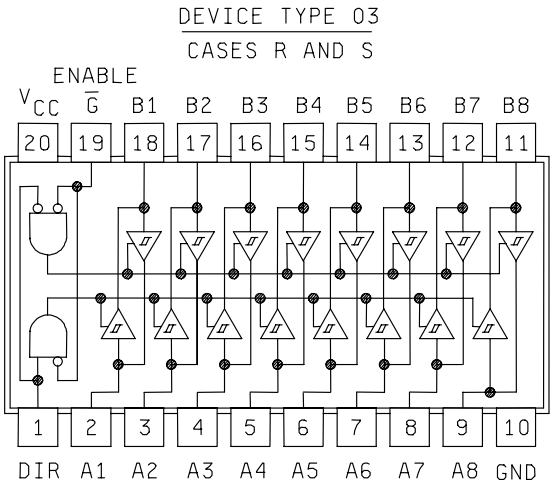


FIGURE 1. Logic diagrams and terminal connections.



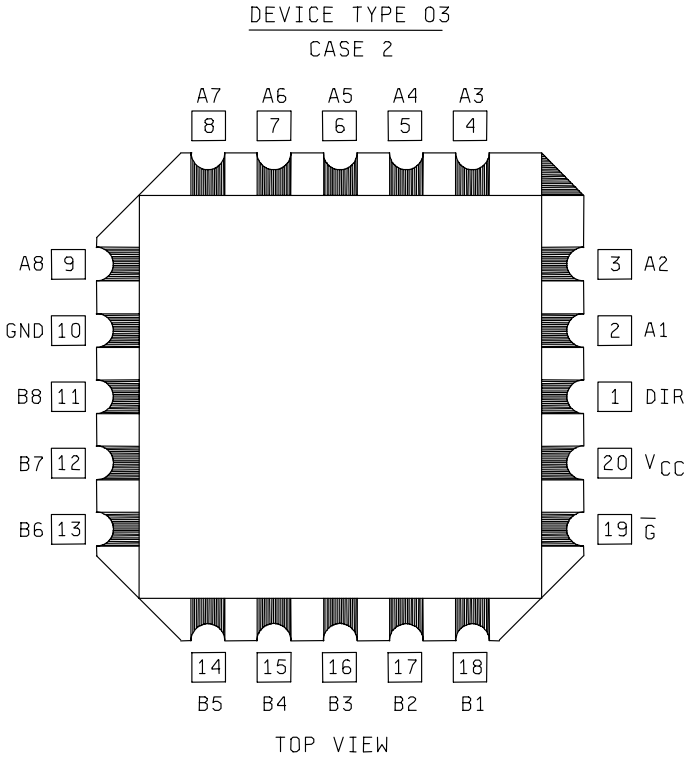
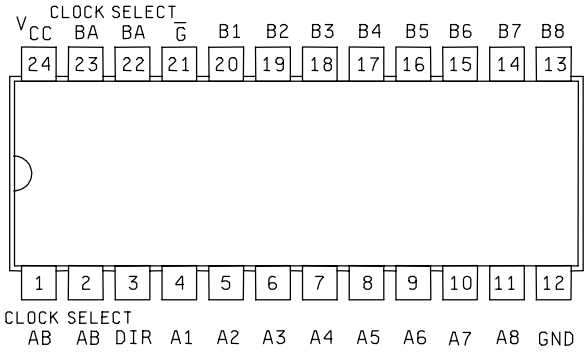


FIGURE 1. Logic diagrams and terminal connections - Continued.

DEVICE TYPES 04 AND 05

TERMINAL CONNECTIONS

CASE L



DEVICE TYPE 04

LOGIC DIAGRAM

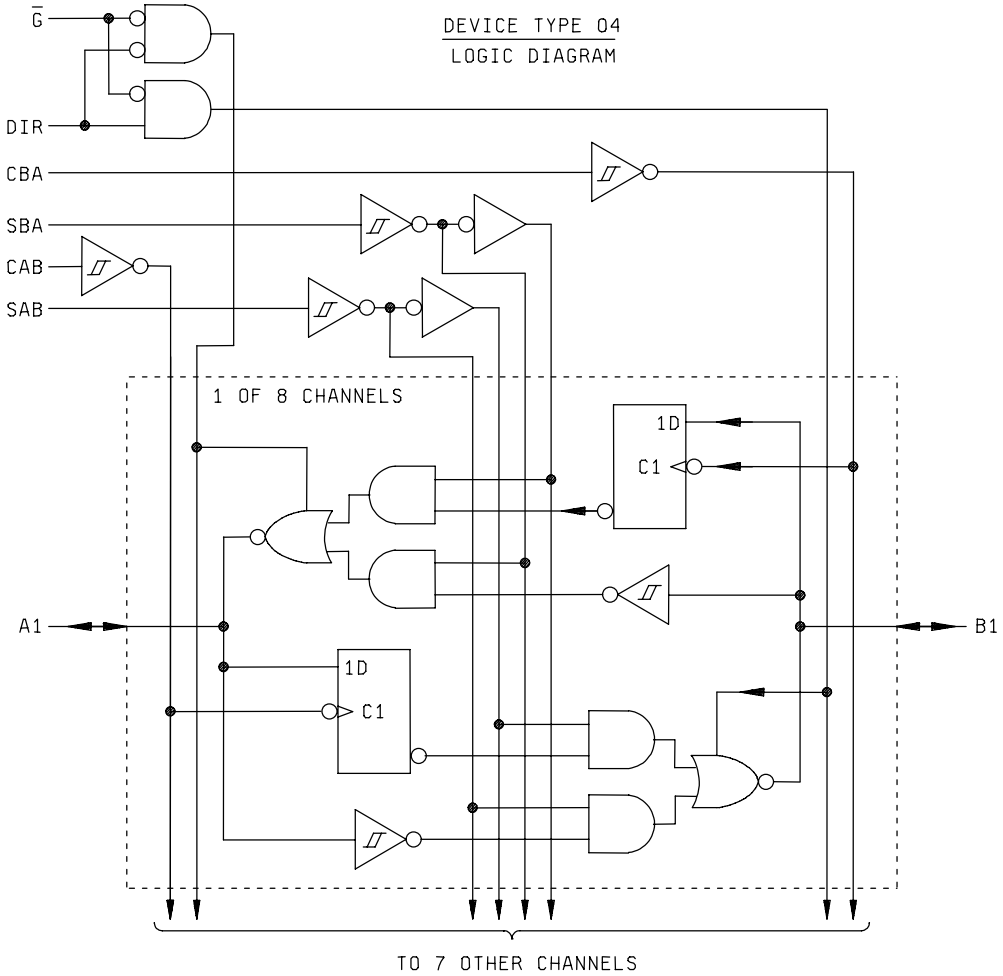


FIGURE 1. Logic diagrams and terminal connections - Continued.

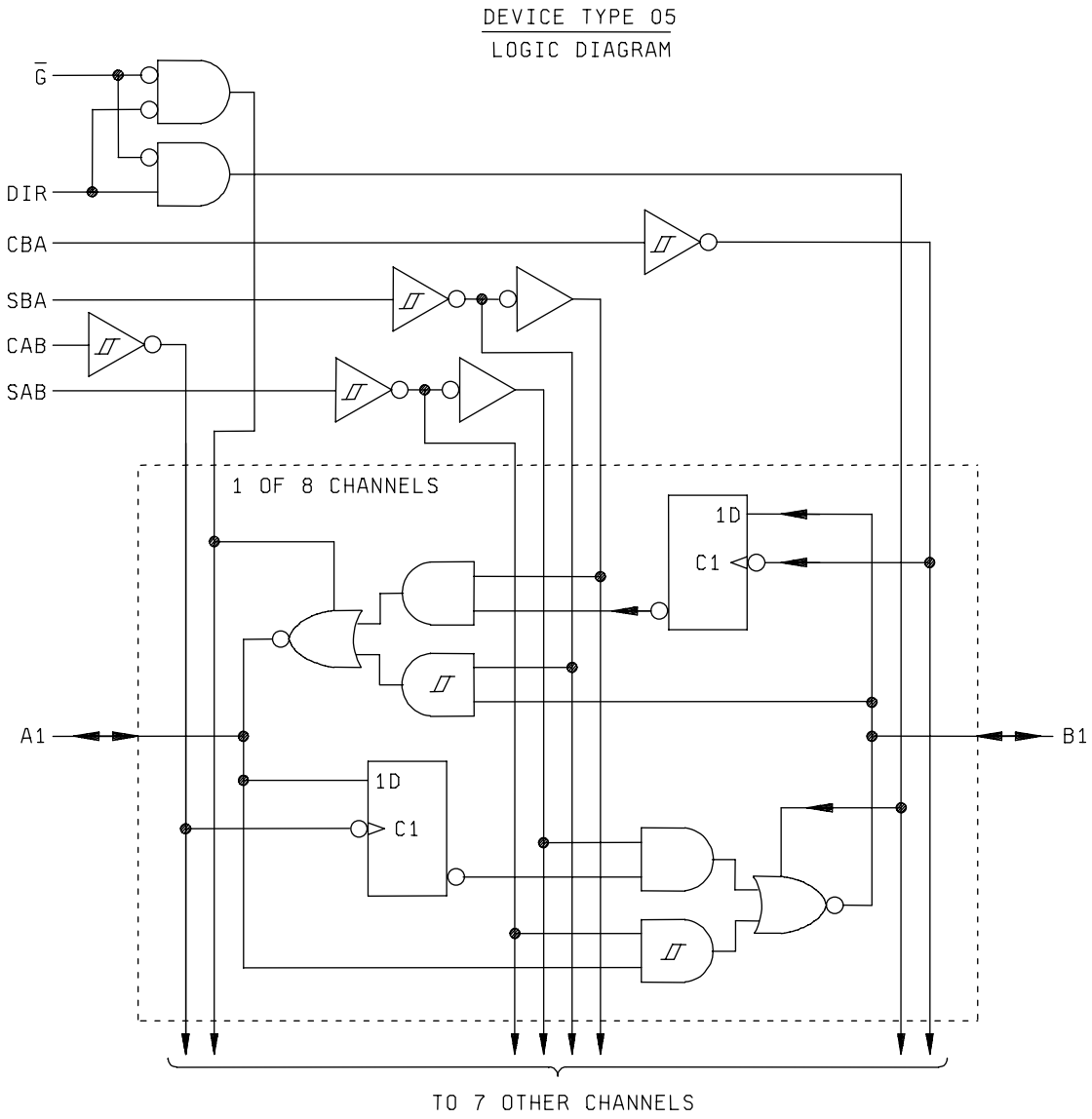


FIGURE 1. Logic diagrams and terminal connections - Continued.

Device type 01

CONTROL INPUTS		DATA PORT STATUS	
$\overline{GAB}$	GBA	A	B
H	H	$\overline{O}$	I
L	H	*	*
H	L	ISOLATED	
L	L	I	$\overline{O}$

* Possibly destructive oscillation may occur if the transceivers are enabled in both directions at once.

I = Input, O = Output, $\overline{O}$ = Inverting Output

Device type 02

CONTROL INPUTS		DATA PORT STATUS	
$\overline{GAB}$	GBA	A	B
H	H	O	I
L	H	*	*
H	L	ISOLATED	
L	L	I	O

* Possibly destructive oscillation may occur if the transceivers are enabled in both directions at once.

I = Input, O = Output, $\overline{O}$ = Inverting Output

Device type 03

ENABLE $\overline{G}$	DIRECTION CONTROL DIR	OPERATION
L	L	B data to A bus
L	H	A data to B bus
H	X	Isolation

H = high level, L = low level, X = irrelevant

FIGURE 2. Truth tables.

Device type 04

INPUTS						DATA I/O *		OPERATION OR FUNCTION
$\overline{G}$	DIR	CAB	CBA	SAB	SBA	A1 thru A8	B1 thru B8	
H	X	H or L	H or L	X	X	Input	Input	Isolation
H	X	↑	↑	X	X			Store A and B Data
L	L	X	X	X	L	Output	Input	Real Time B Data to A Bus
L	L	X	X	X	H			Stored B Data to A Bus
L	H	X	X	L	X	Input	Output	Real Time A Data to B Bus
L	H	H or L	X	H	X			Stored A Data to B Bus

H = High Level L = Low Level X = Irrelevant ↑ = Low to high level transition

* The data output function may be enabled or disabled by various signals at the $\overline{G}$ and DIR inputs. Data input functions are always enabled, i.e., data at the bus pins will be stored on every low to high transition on the clock inputs.

Device type 05

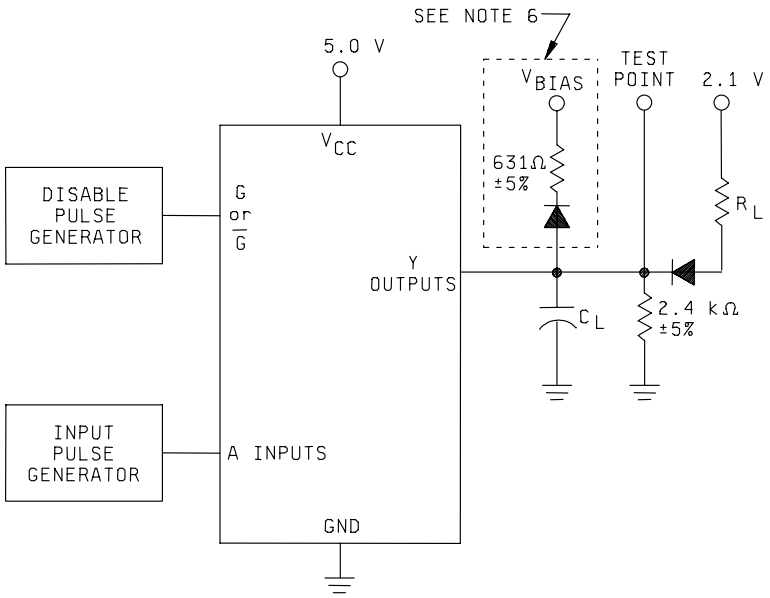
INPUTS						DATA I/O *		OPERATION OR FUNCTION
$\overline{G}$	DIR	CAB	CBA	SAB	SBA	A1 thru A8	B1 thru B8	
H	X	H or L	H or L	X	X	Input	Input	Isolation
H	X	↑	↑	X	X			Store A and B Data
L	L	X	X	X	L	Output	Input	Real Time $\overline{B}$ Data to A Bus
L	L	X	X	X	H			Stored $\overline{B}$ Data to A Bus
L	H	X	X	L	X	Input	Output	Real Time $\overline{A}$ Data to B Bus
L	H	H or L	X	H	X			Stored $\overline{A}$ Data to B Bus

H = High Level L = Low Level X = Irrelevant ↑ = Low to high level transition

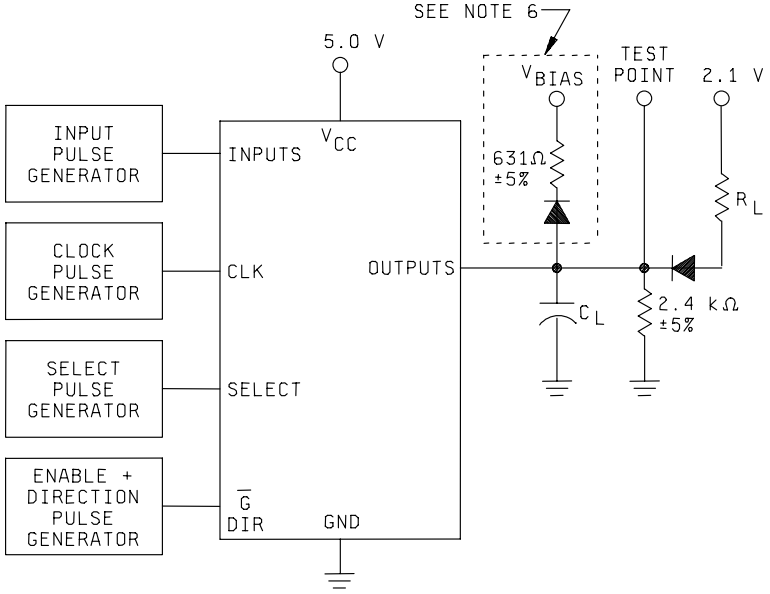
* The data output function may be enabled or disabled by various signals at the $\overline{G}$ and DIR inputs. Data input functions are always enabled, i.e., data at the bus pins will be stored on every low to high transition on the clock inputs.

FIGURE 2. Truth tables - Continued.

TEST CIRCUIT TYPES 01,02 AND 03



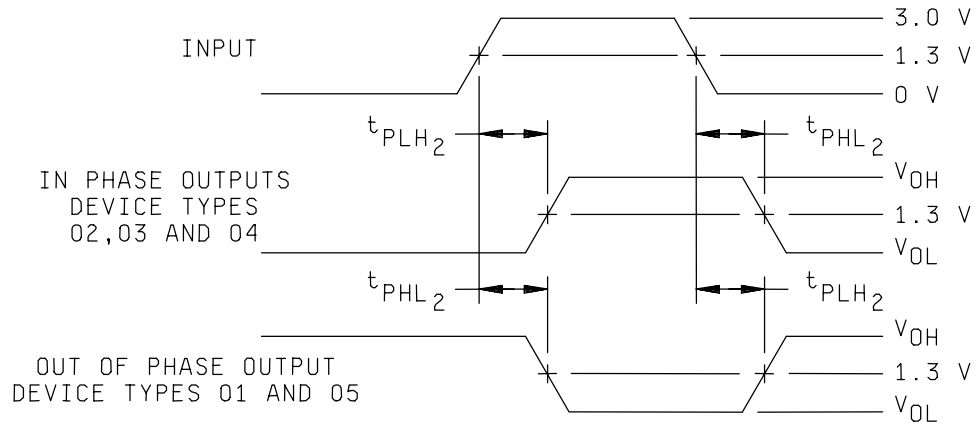
TEST CIRCUIT TYPES 04 AND 05



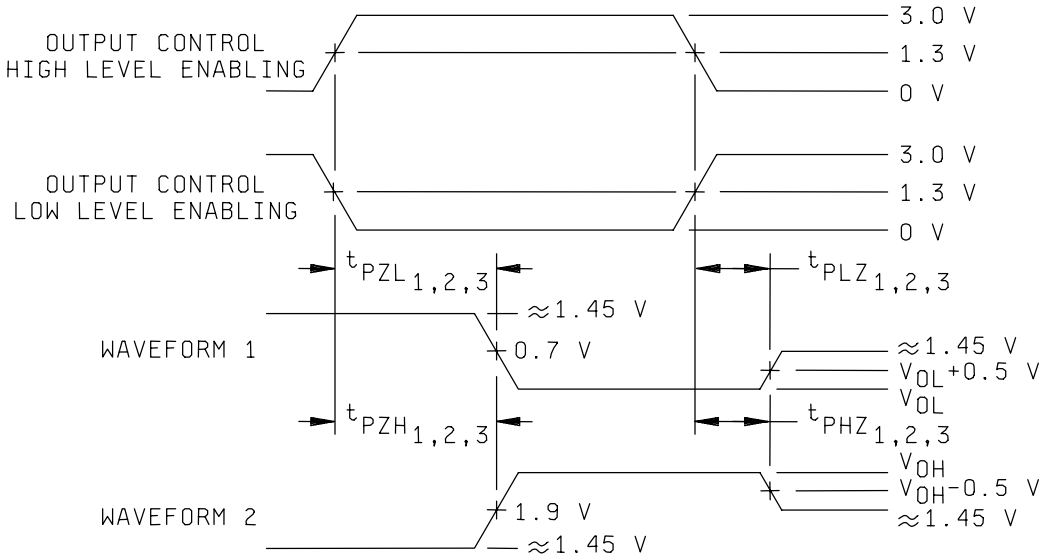
NOTES:

1. $R_L = 110\Omega \pm 5\%$
2. All diodes are 1N3064 or equivalent.
3. $C_L = 50$ pF ±10% including probe and jig capacitance.
4. The pulse generators have the following characteristics: $V_{gen} = 3.0$ V, PRR ≤ 1 MHz, $t_{TLH} \leq 15$ ns, $t_{THL} \leq 6$ ns $Z_{OUT} = 50\Omega$.
5. Clock pulse characteristics: $t_{P(CLK)} = 20$ ns, $t_{SETUP} = 20$ ns.
6. The diode and resistor shown within the dotted area are optional. When the diode and resistor are used, V_{BIAS} shall be 5.5 V for all tests except for t_{PHZ}, for t_{PHZ} tests, V_{BIAS} shall be -0.6V.

FIGURE 3. Switching time test circuit and waveforms.

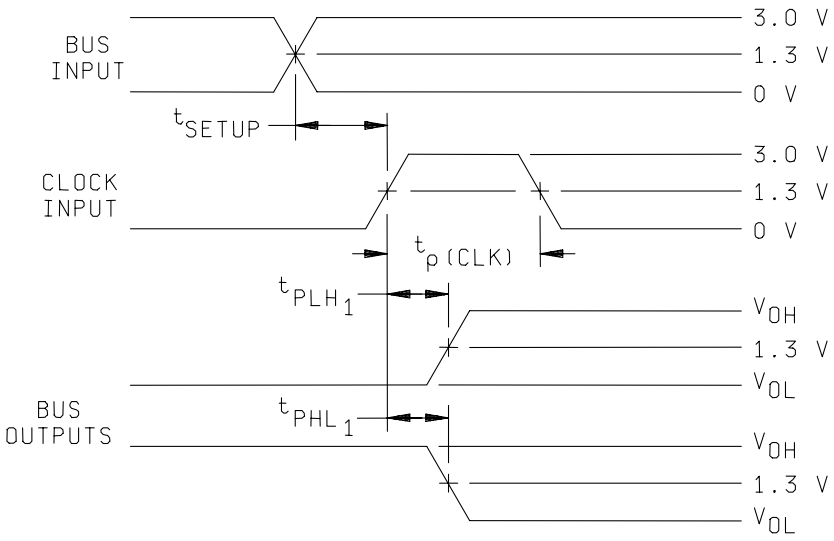


VOLTAGE WAVEFORMS
PROPAGATION DELAY TIMES

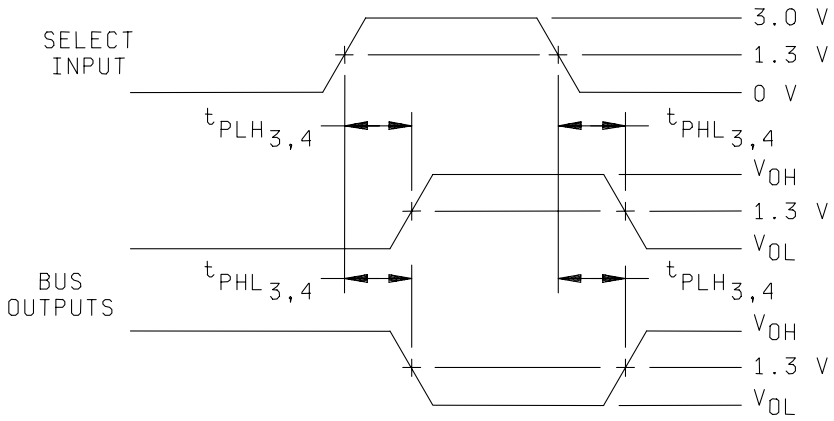


VOLTAGE WAVEFORMS
ENABLE AND DISABLE TIMES,
THREE-STATE OUTPUTS, ALL DEVICES

FIGURE 3. Switching time test circuit and waveforms - Continued.



CLOCK TO OUTPUT (TYPES 04 AND 05)



SELECT TO OUTPUT (TYPES 04 AND 05)

FIGURE 3. Switching time test circuit and waveforms - Continued.

TABLE III. Group A inspection for device type 01.
Terminal conditions (pins not designated may be high ≥ 2.0 V, or low ≤ 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases A, C, D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Measured terminal	Limits		Unit
			Case 2 1/	2	3	4	6	8	9	10	12	13	14	16	18	19	20				
			Test no.	$\overline{GAB}$	NC	1A	2A	3A	4A	GND	4B	3B	2B	1B	NC	GBA	V_{CC}		Min	Max	
1 Tc = 25°C	V_{OH1}	3006	1	0.7 V		0.7 V				GND				-3 mA		0.7 V	4.5 V	1B	2.4		V
		"	2	"			0.7 V			"			-3 mA			"	"	2B	"		"
		"	3	"				0.7 V		"		-3 mA				"	"	3B	"		"
		"	4	"					0.7 V	"	-3 mA					"	"	4B	"		"
		"	5	2.0 V		-3 mA				"				0.7 V		2.0 V	"	1A	"		"
		"	6	"			-3 mA			"			0.7 V			"	"	2A	"		"
		"	7	"				-3 mA		"		0.7 V				"	"	3A	"		"
		"	8	"					-3 mA	"	0.7 V					"	"	4A	"		"
	V_{OH2}	"	9	0.5 V		0.5 V				"				-12 mA		0.5 V	"	1B	2.0		"
		"	10	"			0.5 V			"			-12 mA			"	"	2B	"		"
		"	11	"				0.5 V		"		-12 mA				"	"	3B	"		"
		"	12	"					0.5 V	"	-12 mA					"	"	4B	"		"
		"	13	2.0 V		-12 mA				"				0.5 V		2.0 V	"	1A	"		"
		"	14	"			-12 mA			"			0.5 V			"	"	2A	"		"
		"	15	"				-12 mA		"		0.5 V				"	"	3A	"		"
		"	16	"					-12 mA	"	0.5 V					"	"	4A	"		"
	V_{OL}	3007	17	0.7 V		2.0 V				"				12 mA		0.7 V	"	1B		0.4	"
		"	18	"			2.0 V			"			12 mA			"	"	2B		"	"
		"	19	"				2.0 V		"		12 mA				"	"	3B		"	"
		"	20	"					2.0 V	"	12 mA					"	"	4B		"	"
		"	21	2.0 V		12 mA				"				2.0 V		2.0 V	"	1A		"	"
		"	22	"			12 mA			"			2.0 V			"	"	2A		"	"
		"	23	"				12 mA		"		2.0 V				"	"	3A		"	"
		"	24	"					12 mA	"	2.0 V					"	"	4A		"	"
	I_{OZH}		25			2.7 V				"						0.7 V	5.5 V	1A		2/	2/
			26				2.7 V			"						"	"	2A		"	"
			27					2.7 V		"						"	"	3A		"	"
			28						2.7 V	"						"	"	4A		"	"
			29	2.0 V						"	2.7 V						"	1B		"	"
			30	"						"		2.7 V					"	2B		"	"
			31	"						"			2.7 V				"	3B		"	"
			32	"						"				2.7 V			"	4B		"	"
	I_{OZL}		33			0.4 V				"						0.7 V	"	1A		-200	µA
			34				0.4 V			"						"	"	2A		"	"
			35					0.4 V		"						"	"	3A		"	"
			36						0.4 V	"						"	"	4A		"	"
			37	2.0 V						"	0.4 V						"	1B		"	"
			38	"						"		0.4 V					"	2B		"	"
			39	"						"			0.4 V				"	3B		"	"
			40	"						"				0.4 V			"	4B		"	"
	I_{IL}	3009	41	0.4 V						"							"	$\overline{GAB}$	3/	3/	"
		"	42			0.4 V				"						GND	"	1A	"	"	"
		"	43				0.4 V			"						"	"	2A	"	"	"
		"	44					0.4 V		"						"	"	3A	"	"	"
		"	45						0.4 V	"						"	"	4A	"	"	"
		"	46	5.5 V						"	0.4 V						"	4B	"	"	"
		"	47	"						"		0.4 V					"	3B	"	"	"
		"	48	"						"			0.4 V				"	2B	"	"	"
		"	49	"						"				0.4 V			"	1B	"	"	"
		"	50							"						0.4 V	"	GBA	"	"	"

See footnotes at end of device type 01.

TABLE III. Group A inspection for device type 01.
Terminal conditions (pins not designated may be high ≥ 2.0 V, or low ≤ 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases A, C, D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Measured terminal	Limits		Unit
			Case 2 1/	2	3	4	6	8	9	10	12	13	14	16	18	19	20				
			Test no.	$\overline{GAB}$	NC	1A	2A	3A	4A	GND	4B	3B	2B	1B	NC	GBA	V_{CC}		Min	Max	
1	I_{IH1}	3010	51	2.7 V						GND							5.5 V	$\overline{GAB}$		20	µA
Tc = 25°C		"	52			2.7 V				"						GND	"	1A		"	"
		"	53				2.7 V			"						"	"	2A		"	"
		"	54					2.7 V		"						"	"	3A		"	"
		"	55						2.7 V	"						"	"	4A		"	"
		"	56	5.5 V						"	2.7 V						"	4B		"	"
		"	57	"						"		2.7 V					"	3B		"	"
		"	58	"						"			2.7 V				"	2B		"	"
		"	59	"						"				2.7 V			"	1B		"	"
		"	60							"						2.7 V	"	GBA		"	"
	I_{IH2}	"	61	5.5 V						"							"	$\overline{GAB}$		100	"
		"	62			5.5 V				"						GND	"	1A		"	"
		"	63				5.5 V			"						"	"	2A		"	"
		"	64					5.5 V		"						"	"	3A		"	"
		"	65						5.5 V	"						"	"	4A		"	"
		"	66	5.5 V						"	5.5 V						"	4B		"	"
		"	67	"						"		5.5 V					"	3B		"	"
		"	68	"						"			5.5 V				"	2B		"	"
		"	69	"						"				5.5 V			"	1B		"	"
		"	70							"						5.5 V	"	GBA		"	"
	V_{IC}		71	-18 mA						"							4.5 V	$\overline{GAB}$		-1.5	V
			72			-18 mA				"						GND	"	1A		"	"
			73				-18 mA			"						"	"	2A		"	"
			74					-18 mA		"						"	"	3A		"	"
			75						-18 mA	"						"	"	4A		"	"
			76	5.5 V						"	-18 mA						"	4B		"	"
			77	"						"		-18 mA					"	3B		"	"
			78	"						"			-18 mA				"	2B		"	"
			79	"						"				-18 mA			"	1B		"	"
			80							"						-18 mA	"	GBA		"	"
	I_{CCH}	3005	81	GND		GND	GND	GND	GND	"						GND	5.5 V	V_{CC}		38	mA
	I_{CCL}	3005	82	GND		5.5 V	5.5 V	5.5 V	5.5 V	"						GND	"	V_{CC}		50	"
	I_{CCZ}	3005	83	5.5 V						"						GND	"	V_{CC}		50	"
	I_{OS}	3011	84	GND		GND				"				GND		GND	"	1B	-40	-225	"
			85	"			GND			"			GND			"	"	2B	"	"	"
			86	"				GND		"		GND				"	"	3B	"	"	"
			87	"					GND	"	GND					"	"	4B	"	"	"
			88	4.5 V		GND				"				GND		4.5 V	"	1A	"	"	"
			89	"			GND			"			GND			"	"	2A	"	"	"
			90	"				GND		"		GND				"	"	3A	"	"	"
			91	"					GND	"	GND					"	"	4A	"	"	"
2	Same tests, terminal conditions, and limits as for subgroup 1, except Tc = 125°C and V_{IC} tests are omitted.																				
3	Same tests, terminal conditions, and limits as for subgroup 1, except Tc = -55°C and V_{IC} tests are omitted.																				
7	Truth		92	B		A	A	A	A	GND	L	L	L	L		B	5.0 V				
Tc = 25°C	table		93	B		B	B	B	B	"	H	H	H	H		B	"	5/			
	tests		94	A		L	L	L	L	"	A	A	A	A		A	"				
	4/		95	A		H	H	H	H	"	B	B	B	B		A	"				
		Test 96 optional	96	A		H	H	H	H	"	H	H	H	H		B	"	6/ for test 96 only)			
8	Same tests and terminal conditions as subgroup 7, except Tc = +125°C and -55°C.																				

See footnotes at end of device type 01.

TABLE III. Group A inspection for device type 01.
Terminal conditions (pins not designated may be high ≥ 2.0 V, or low ≤ 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases A, C, D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Measured terminal	Limits		Unit
			Case 2 1/	2	3	4	6	8	9	10	12	13	14	16	18	19	20				
			Test no.	$\overline{GAB}$	NC	1A	2A	3A	4A	GND	4B	3B	2B	1B	NC	GBA	V_{CC}		Min	Max	
9 Tc = 25°C	t_{PLH2}	3003 See fig. 3	97	GND		IN				GND				OUT		GND	5.0 V	1A to 1B	2	19	ns
			98	"			IN			"			OUT			"	"	2A to 2B	"	"	"
			99	"				IN		"		OUT				"	"	3A to 2B	"	"	"
			100	"					IN	"	OUT					"	"	4A to 2B	"	"	"
			101	4.5 V		OUT				"				IN		4.5 V	"	1B to 1A	"	"	"
			102	"			OUT			"			IN			"	"	2B to 2A	"	"	"
			103	"				OUT		"		IN				"	"	3B to 3A	"	"	"
			104	"					OUT	"	IN					"	"	4B to 4A	"	"	"
	t_{PHL2}	"	105	GND		IN				"				OUT		GND	"	1A to 1B	"	23	"
			106	"			IN			"			OUT			"	"	2A to 2B	"	"	"
			107	"				IN		"		OUT				"	"	3A to 2B	"	"	"
			108	"					IN	"	OUT					"	"	4A to 2B	"	"	"
			109	4.5 V		OUT				"				IN		4.5 V	"	1B to 1A	"	"	"
			110	"			OUT			"			IN			"	"	2B to 2A	"	"	"
			111	"				OUT		"		IN				"	"	3B to 3A	"	"	"
			112	"					OUT	"	IN					"	"	4B to 4A	"	"	"
	t_{PZL1}	"	113	IN		4.5 V				"				OUT		GND	"	$\overline{GAB}$ to 1B	"	35	"
			114	"			4.5 V			"			OUT			"	"	$\overline{GAB}$ to 2B	"	"	"
			115	"				4.5 V		"		OUT				"	"	$\overline{GAB}$ to 2B	"	"	"
			116	"					4.5 V	"	OUT					"	"	$\overline{GAB}$ to 2B	"	"	"
			117	4.5 V		OUT				"				4.5 V		IN	"	GBA to 1A	"	"	"
			118	"			OUT			"			4.5 V			"	"	GBA to 2A	"	"	"
			119	"				OUT		"		4.5 V				"	"	GBA to 3A	"	"	"
			120	"					OUT	"	4.5 V					"	"	GBA to 4A	"	"	"
	t_{PZH1}	"	121	IN		GND				"				OUT		GND	"	$\overline{GAB}$ to 1B	"	28	"
			122	"			GND			"			OUT			"	"	$\overline{GAB}$ to 2B	"	"	"
			123	"				GND		"		OUT				"	"	$\overline{GAB}$ to 2B	"	"	"
			124	"					GND	"	OUT					"	"	$\overline{GAB}$ to 2B	"	"	"
			125	4.5 V		OUT				"				GND		IN	"	GBA to 1A	"	"	"
			126	"			OUT			"			GND			"	"	GBA to 2A	"	"	"
			127	"				OUT		"		GND				"	"	GBA to 3A	"	"	"
			128	"					OUT	"	GND					"	"	GBA to 4A	"	"	"
	t_{PLZ1}	"	129	IN		4.5 V				"				OUT		GND	"	$\overline{GAB}$ to 1B	"	30	"
			130	"			4.5 V			"			OUT			"	"	$\overline{GAB}$ to 2B	"	"	"
			131	"				4.5 V		"		OUT				"	"	$\overline{GAB}$ to 2B	"	"	"
			132	"					4.5 V	"	OUT					"	"	$\overline{GAB}$ to 2B	"	"	"
			133	4.5 V		OUT				"				4.5 V		IN	"	GBA to 1A	"	"	"
			134	"			OUT			"			4.5 V			"	"	GBA to 2A	"	"	"
			135	"				OUT		"		4.5 V				"	"	GBA to 3A	"	"	"
			136	"					OUT	"	4.5 V					"	"	GBA to 4A	"	"	"

See footnotes at end of device type 01.

TABLE III. Group A inspection for device type 01.
Terminal conditions (pins not designated may be high ≥ 2.0 V, or low ≤ 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases A, C, D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Measured terminal	Limits		Unit
			Case 2 1/	2	3	4	6	8	9	10	12	13	14	16	18	19	20				
			Test no.	$\overline{GAB}$	NC	1A	2A	3A	4A	GND	4B	3B	2B	1B	NC	GBA	V_{CC}		Min	Max	
9	t_{PHZ1}	3003	137	IN		GND				GND				OUT		GND	5.0 V	$\overline{GAB}$ to 1B	2	35	ns
Tc = 25°C		See fig. 3	138	"			GND			"			OUT			"	"	$\overline{GAB}$ to 2B	"	"	"
		"	139	"				GND		"		OUT				"	"	$\overline{GAB}$ to 2B	"	"	"
		"	140	"					GND	"	OUT					"	"	$\overline{GAB}$ to 2B	"	"	"
		"	141	4.5 V		OUT				"				GND		IN	"	GBA to 1A	"	"	"
		"	142	"			OUT			"			GND			"	"	GBA to 2A	"	"	"
		"	143	"				OUT		"		GND				"	"	GBA to 3A	"	"	"
		"	144	"					OUT	"	GND					"	"	GBA to 4A	"	"	"
10	t_{PLH2}	Same tests ans terminal conditions as subgroup 9, except Tc = +125°C.																	"	25	"
	t_{PHL2}																		"	30	"
	t_{PZL1}																		"	46	"
	t_{PZH1}																		"	36	"
	t_{PLZ1}																		"	39	"
	t_{PHZ1}																		"	46	"
11	Same tests, terminal conditions, and limits as for subgroup 10, except Tc = -55°C.																				

1/ Pins not referenced are N/C.
2/ The I_{OZH} limit for circuits D and E shall be 20 µA maximum; the limit for circuits A, B, and C shall be 40 µA maximum.
3/ The I_{IL} limits are as follows:

Test	Min/Max limits µA for circuit:				
	A	B	C	D	E
I_{IL}	-5/-200	0/-100	0/-200	-10/-150	0/-150

4/ A = 3.0 V minimum; B = 0.0 V or GND.
5/ H > 1.5 V; L < 1.5 V.
6/ Add resistor of 0.5 kΩ to 5 kΩ between V_{CC} and each output.

TABLE III. Group A inspection for device type 02.
Terminal conditions (pins not designated may be high ≥ 2.0 V, or low ≤ 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases A, C, D Case 2 1/ Test no.	1 2 $\overline{GAB}$	2 3 NC	3 4 1A	4 6 2A	5 8 3A	6 9 4A	7 10 GND	8 12 4B	9 13 3B	10 14 2B	11 16 1B	12 18 NC	13 19 GBA	14 20 V_{CC}	Measured terminal	Limits Min	Limits Max	Unit
1 Tc = 25°C	V_{OH1}	3006	1	0.7 V		2.0 V				GND				-3 mA		0.7 V	4.5 V	1B	2.4		V
	"	"	2	"			2.0 V			"			-3 mA			"	"	2B	"		"
	"	"	3	"				2.0 V		"		-3 mA				"	"	3B	"		"
	"	"	4	"					2.0 V	"	-3 mA					"	"	4B	"		"
	"	"	5	2.0 V		-3 mA				"				2.0 V		2.0 V	"	1A	"		"
	"	"	6	"			-3 mA			"			2.0 V			"	"	2A	"		"
	"	"	7	"				-3 mA		"		2.0 V				"	"	3A	"		"
	"	"	8	"					-3 mA	"	2.0 V					"	"	4A	"		"
	V_{OH2}	"	9	0.5 V		2.0 V				"				-12 mA		0.5 V	"	1B	2.0		"
	"	"	10	"			2.0 V			"			-12 mA			"	"	2B	"		"
	"	"	11	"				2.0 V		"		-12 mA				"	"	3B	"		"
	"	"	12	"					2.0 V	"	-12 mA					"	"	4B	"		"
	"	"	13	2.0 V		-12 mA				"				2.0 V		2.0 V	"	1A	"		"
	"	"	14	"			-12 mA			"			2.0 V			"	"	2A	"		"
	"	"	15	"				-12 mA		"		2.0 V				"	"	3A	"		"
	"	"	16	"					-12 mA	"	2.0 V					"	"	4A	"		"
	V_{OL}	3007	17	0.7 V		0.7 V				"				12 mA		0.7 V	"	1B		0.4	"
	"	"	18	"			0.7 V			"			12 mA			"	"	2B		"	"
	"	"	19	"				0.7 V		"		12 mA				"	"	3B		"	"
	"	"	20	"					0.7 V	"	12 mA					"	"	4B		"	"
	"	"	21	2.0 V		12 mA				"				0.7 V		2.0 V	"	1A		"	"
	"	"	22	"			12 mA			"			0.7 V			"	"	2A		"	"
	"	"	23	"				12 mA		"		0.7 V				"	"	3A		"	"
	"	"	24	"					12 mA	"	0.7 V					"	"	4A		"	"
	I_{OZH}		25			2.7 V				"						0.7 V	5.5 V	1A		2/	2/
	"		26				2.7 V			"						"	"	2A		"	"
	"		27					2.7 V		"						"	"	3A		"	"
	"		28						2.7 V	"						"	"	4A		"	"
	"		29	2.0 V						"	2.7 V						"	4B		"	"
	"		30	"						"		2.7 V					"	3B		"	"
	"		31	"						"			2.7 V				"	2B		"	"
	"		32	"						"				2.7 V			"	1B		"	"
	I_{OZL}		33			0.4 V				"						0.7 V	"	1A		-200	µA
	"		34				0.4 V			"						"	"	2A		"	"
	"		35					0.4 V		"						"	"	3A		"	"
	"		36						0.4 V	"						"	"	4A		"	"
	"		37	2.0 V						"	0.4 V						"	4B		"	"
	"		38	"						"		0.4 V					"	3B		"	"
	"		39	"						"			0.4 V				"	2B		"	"
	"		40	"						"				0.4 V			"	1B		"	"
	I_{IL}	3009	41	0.4 V						"							"	$\overline{GAB}$	3/	3/	"
	"	"	42			0.4 V				"						GND	"	1A	"	"	"
	"	"	43				0.4 V			"						"	"	2A	"	"	"
	"	"	44					0.4 V		"						"	"	3A	"	"	"
	"	"	45						0.4 V	"						"	"	4A	"	"	"
	"	"	46	5.5 V						"	0.4 V						"	4B	"	"	"
	"	"	47	"						"		0.4 V					"	3B	"	"	"
	"	"	48	"						"			0.4 V				"	2B	"	"	"
	"	"	49	"						"				0.4 V			"	1B	"	"	"
	"	"	50							"						0.4 V	"	GBA	"	"	"

See footnotes at end of device type 02.

TABLE III. Group A inspection for device type 02.
Terminal conditions (pins not designated may be high ≥ 2.0 V, or low ≤ 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases A, C, D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Measured terminal	Limits		Unit
			Case 2 1/	2	3	4	6	8	9	10	12	13	14	16	18	19	20				
			Test no.	$\overline{GAB}$	NC	1A	2A	3A	4A	GND	4B	3B	2B	1B	NC	GBA	V_{CC}		Min	Max	
1	I_{IH1}	3010	51	2.7 V						GND							5.5 V	$\overline{GAB}$		20	µA
Tc = 25°C		"	52			2.7 V				"						GND	"	1A		"	"
		"	53				2.7 V			"						"	"	2A		"	"
		"	54					2.7 V		"						"	"	3A		"	"
		"	55						2.7 V	"						"	"	4A		"	"
		"	56	5.5 V						"	2.7 V						"	4B		"	"
		"	57	"						"		2.7 V					"	3B		"	"
		"	58	"						"			2.7 V				"	2B		"	"
		"	59	"						"				2.7 V			"	1B		"	"
		"	60							"						2.7 V	"	GBA		"	"
	I_{IH2}	"	61	5.5 V						"							"	$\overline{GAB}$		100	"
		"	62			5.5 V				"						GND	"	1A		"	"
		"	63				5.5 V			"						"	"	2A		"	"
		"	64					5.5 V		"						"	"	3A		"	"
		"	65						5.5 V	"						"	"	4A		"	"
		"	66	5.5 V						"	5.5 V						"	4B		"	"
		"	67	"						"		5.5 V					"	3B		"	"
		"	68	"						"			5.5 V				"	2B		"	"
		"	69	"						"				5.5 V			"	1B		"	"
		"	70							"						5.5 V	"	GBA		"	"
	V_{IC}		71	-18 mA						"							4.5 V	$\overline{GAB}$		-1.5	V
			72			-18 mA				"						GND	"	1A		"	"
			73				-18 mA			"						"	"	2A		"	"
			74					-18 mA		"						"	"	3A		"	"
			75						-18 mA	"						"	"	4A		"	"
			76	5.5 V						"	-18 mA					"	"	4B		"	"
			77	"						"		-18 mA					"	3B		"	"
			78	"						"			-18 mA				"	2B		"	"
			79	"						"				-18 mA			"	1B		"	"
			80	"						"						-18 mA	"	GBA		"	"
	I_{CCH}	3005	81	GND		5.5 V	5.5 V	5.5 V	5.5 V	"						GND	5.5 V	V_{CC}		38	mA
	I_{CCL}	3005	82	GND		GND	GND	GND	GND	"						GND	"	V_{CC}		50	"
	I_{CCZ}	3005	83	5.5 V						"						GND	"	V_{CC}		50	"
	I_{OS}	3011	84	GND		5.5 V				"				GND		GND	"	1B	-40	-225	"
		"	85	"			5.5 V			"			GND			"	"	2B	"	"	"
		"	86	"				5.5 V		"		GND				"	"	3B	"	"	"
		"	87	"					5.5 V	"	GND					"	"	4B	"	"	"
		"	88	5.5 V		GND				"				5.5 V		5.5 V	"	1A	"	"	"
		"	89	"			GND			"			5.5 V			"	"	2A	"	"	"
		"	90	"				GND		"		5.5 V				"	"	3A	"	"	"
		"	91	"					GND	"	5.5 V					"	"	4A	"	"	"
2	Same tests, terminal conditions, and limits as for subgroup 1, except Tc = 125°C and V_{IC} tests are omitted.																				
3	Same tests, terminal conditions, and limits as for subgroup 1, except Tc = -55°C and V_{IC} tests are omitted.																				
7	Truth		92	B		A	A	A	A	GND	H	H	H	H		B	5.0 V				
Tc = 25°C	table		93	B		B	B	B	B	"	L	L	L	L		B	"	5/			
	tests		94	A		H	H	H	H	"	A	A	A	A		A	"				
	4/		95	A		L	L	L	L	"	B	B	B	B		A	"				
			96	A		H	H	H	H	"	H	H	H	H		B	"	6/ for test 96 only)			
8	Same tests and terminal conditions as subgroup 7, except Tc = +125°C and -55°C.																				

See footnotes at end of device type 02.

TABLE III. Group A inspection for device type 02.
Terminal conditions (pins not designated may be high ≥ 2.0 V, or low ≤ 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases A, C, D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Measured terminal	Limits		Unit
			Case 2 1/	2	3	4	6	8	9	10	12	13	14	16	18	19	20				
			Test no.	$\overline{GAB}$	NC	1A	2A	3A	4A	GND	4B	3B	2B	1B	NC	GBA	V_{CC}		Min	Max	
9 Tc = 25°C	t_{PLH2}	3003 See fig. 3	97	GND		IN				GND				OUT		GND	5.0 V	1A to 1B	2	19	ns
			98	"			IN			"			OUT			"	"	2A to 2B	"	"	"
			99	"				IN		"		OUT				"	"	3A to 3B	"	"	"
			100	"					IN	"	OUT					"	"	4A to 4B	"	"	"
			101	4.5 V		OUT				"				IN		4.5 V	"	1B to 1A	"	"	"
			102	"			OUT			"			IN			"	"	2B to 2A	"	"	"
			103	"				OUT		"		IN				"	"	3B to 3A	"	"	"
			104	"					OUT	"	IN					"	"	4B to 4A	"	"	"
	t_{PHL2}	"	105	GND		IN				"				OUT		GND	"	1A to 1B	"	23	"
			106	"			IN			"			OUT			"	"	2A to 2B	"	"	"
			107	"				IN		"		OUT				"	"	3A to 3B	"	"	"
			108	"					IN	"	OUT					"	"	4A to 4B	"	"	"
			109	4.5 V		OUT				"				IN		4.5 V	"	1B to 1A	"	"	"
			110	"			OUT			"			IN			"	"	2B to 2A	"	"	"
			111	"				OUT		"		IN				"	"	3B to 3A	"	"	"
			112	"					OUT	"	IN					"	"	4B to 4A	"	"	"
	t_{PZL1}	"	113	IN		GND				"				OUT		GND	"	$\overline{GAB}$ to 1B	"	35	"
			114	"			GND			"			OUT			"	"	$\overline{GAB}$ to 2B	"	"	"
			115	"				GND		"		OUT				"	"	$\overline{GAB}$ to 3B	"	"	"
			116	"					GND	"	OUT					"	"	$\overline{GAB}$ to 4B	"	"	"
			117	4.5 V		OUT				"				GND		IN	"	GBA to 1A	"	"	"
			118	"			OUT			"			GND			"	"	GBA to 2A	"	"	"
			119	"				OUT		"		GND				"	"	GBA to 3A	"	"	"
			120	"					OUT	"	GND					"	"	GBA to 4A	"	"	"
	t_{PZH1}	"	121	IN		4.5 V				"				OUT		GND	"	$\overline{GAB}$ to 1B	"	28	"
			122	"			4.5 V			"			OUT			"	"	$\overline{GAB}$ to 2B	"	"	"
			123	"				4.5 V		"		OUT				"	"	$\overline{GAB}$ to 3B	"	"	"
			124	"					4.5 V	"	OUT					"	"	$\overline{GAB}$ to 4B	"	"	"
			125	4.5 V		OUT				"				4.5 V		IN	"	GBA to 1A	"	"	"
			126	"			OUT			"			4.5 V			"	"	GBA to 2A	"	"	"
			127	"				OUT		"		4.5 V				"	"	GBA to 3A	"	"	"
			128	"					OUT	"	4.5 V					"	"	GBA to 4A	"	"	"
	t_{PLZ1}	"	129	IN		GND				"				OUT		GND	"	$\overline{GAB}$ to 1B	"	30	"
			130	"			GND			"			OUT			"	"	$\overline{GAB}$ to 2B	"	"	"
			131	"				GND		"		OUT				"	"	$\overline{GAB}$ to 3B	"	"	"
			132	"					GND	"	OUT					"	"	$\overline{GAB}$ to 4B	"	"	"
			133	4.5 V		OUT				"				GND		IN	"	GBA to 1A	"	"	"
			134	"			OUT			"			GND			"	"	GBA to 2A	"	"	"
			135	"				OUT		"		GND				"	"	GBA to 3A	"	"	"
			136	"					OUT	"	GND					"	"	GBA to 4A	"	"	"

See footnotes at end of device type 02.

TABLE III. Group A inspection for device type 02.
Terminal conditions (pins not designated may be high ≥ 2.0 V, or low ≤ 0.7 V, or open).

Subgroup	Symbol	MIL-STD-883 method	Cases A, C, D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Measured terminal	Limits		Unit
			Case 2 1/	2	3	4	6	8	9	10	12	13	14	16	18	19	20				
			Test no.	$\overline{GAB}$	NC	1A	2A	3A	4A	GND	4B	3B	2B	1B	NC	GBA	V_{CC}		Min	Max	
9	t_{PHZ1}	3003	137	IN		4.5 V				GND				OUT		GND	5.0 V	$\overline{GAB}$ to 1B	2	35	ns
Tc = 25°C		See fig. 3	138	"			4.5 V			"			OUT			"	"	$\overline{GAB}$ to 2B	"	"	"
		"	139	"				4.5 V		"		OUT				"	"	$\overline{GAB}$ to 3B	"	"	"
		"	140	"					4.5 V	"	OUT					"	"	$\overline{GAB}$ to 4B	"	"	"
		"	141	4.5 V		OUT				"				4.5 V		IN	"	GBA to 1A	"	"	"
		"	142	"			OUT			"			4.5 V			"	"	GBA to 2A	"	"	"
		"	143	"				OUT		"		4.5 V				"	"	GBA to 3A	"	"	"
		"	144	"					OUT	"	4.5 V					"	"	GBA to 4A	"	"	"
10	t_{PLH2}	Same tests ans terminal conditions as subgroup 9, except Tc = +125°C.																	"	25	"
	t_{PHL2}																		"	30	"
	t_{PZL1}																		"	46	"
	t_{PZH1}																		"	36	"
	t_{PLZ1}																		"	39	"
	t_{PHZ1}																		"	46	"
11	Same tests, terminal conditions, and limits as for subgroup 10, except Tc = -55°C.																				

1/ Pins not referenced are N/C.
2/ The I_{OZH} limit for circuits D and E shall be 20 µA maximum; the limit for circuits A, B, and C shall be 40 µA maximum.
3/ The I_{IL} limits are as follows:

Test	Min/Max limits µA for circuit:				
	A	B	C	D	E
I_{IL}	-5/-200	0/-100	0/-200	-10/-150	0/-150

4/ A = 3.0 V minimum; B = 0.0 V or GND.
5/ H > 1.5 V; L < 1.5 V.
6/ Add resistor of 0.5 kΩ to 5 kΩ between V_{CC} and each output.

TABLE III. Group A inspection for device type 03.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Cases R, S, 2 Test no.	1 DIR	2 A1	3 A2	4 A3	5 A4	6 A5	7 A6	8 A7	9 A8	10 GND	11 B8	12 B7	13 B6	14 B5	15 B4	16 B3	17 B2	18 B1	19 $\overline{G}$	20 V_{CC}	Measured terminal	Test limits Min	Test limits Max	Unit
1	V_{OH1}	3006	1	2.0 V	2.0 V								GND								-3mA	0.7 V	4.5 V	B1	2.4		V
Tc = 25°C	"	"	2	"		2.0 V							"							-3mA		"	"	B2	"		"
	"	"	3	"			2.0 V						"						-3mA			"	"	B3	"		"
	"	"	4	"				2.0 V					"					-3mA				"	"	B4	"		"
	"	"	5	"					2.0 V				"				-3mA					"	"	B5	"		"
	"	"	6	"						2.0 V			"			-3mA						"	"	B6	"		"
	"	"	7	"							2.0 V		"		-3mA							"	"	B7	"		"
	"	"	8	"								2.0 V	"	-3mA								"	"	B8	"		"
	"	"	9	0.7 V	-3mA								"								2.0 V	"	"	A1	"		"
	"	"	10	"		-3mA							"							2.0 V		"	"	A2	"		"
	"	"	11	"			-3mA						"						2.0 V			"	"	A3	"		"
	"	"	12	"				-3mA					"					2.0 V				"	"	A4	"		"
	"	"	13	"					-3mA				"				2.0 V					"	"	A5	"		"
	"	"	14	"						-3mA			"			2.0 V						"	"	A6	"		"
	"	"	15	"							-3mA		"		2.0 V							"	"	A7	"		"
	"	"	16	"								-3mA	"	2.0 V								"	"	A8	"		"
	V_{OH2}	"	17	2.0 V	2.0 V								GND								-12mA	0.5 V	"	B1	2.0		"
	"	"	18	"		2.0 V							"							-12mA		"	"	B2	"		"
	"	"	19	"			2.0 V						"						-12mA			"	"	B3	"		"
	"	"	20	"				2.0 V					"					-12mA				"	"	B4	"		"
	"	"	21	"					2.0 V				"				-12mA					"	"	B5	"		"
	"	"	22	"						2.0 V			"			-12mA						"	"	B6	"		"
	"	"	23	"							2.0 V		"		-12mA							"	"	B7	"		"
	"	"	24	"								2.0 V	"	-12mA								"	"	B8	"		"
	"	"	25	0.5 V	-12mA								"								2.0 V	"	"	A1	"		"
	"	"	26	"		-12mA							"							2.0 V		"	"	A2	"		"
	"	"	27	"			-12mA						"						2.0 V			"	"	A3	"		"
	"	"	28	"				-12mA					"					2.0 V				"	"	A4	"		"
	"	"	29	"					-12mA				"				2.0 V					"	"	A5	"		"
	"	"	30	"						-12mA			"			2.0 V						"	"	A6	"		"
	"	"	31	"							-12mA		"		2.0 V							"	"	A7	"		"
	"	"	32	"								-12mA	"	2.0 V								"	"	A8	"		"
	V_{OL}	3007	33	2.0 V	0.7 V								"								12 mA	0.7 V	"	B1		0.4	"
	"	"	34	"		0.7 V							"							12 mA		"	"	B2		"	"
	"	"	35	"			0.7 V						"						12 mA			"	"	B3		"	"
	"	"	36	"				0.7 V					"					12 mA				"	"	B4		"	"
	"	"	37	"					0.7 V				"				12 mA					"	"	B5		"	"
	"	"	38	"						0.7 V			"			12 mA						"	"	B6		"	"
	"	"	39	"							0.7 V		"		12 mA							"	"	B7		"	"
	"	"	40	"								0.7 V	"	12 mA								"	"	B8		"	"
	"	"	41	0.7 V	12 mA								"								0.7 V	"	"	A1		"	"
	"	"	42	"		12 mA							"							0.7 V		"	"	A2		"	"
	"	"	43	"			12 mA						"						0.7 V			"	"	A3		"	"
	"	"	44	"				12 mA					"					0.7 V				"	"	A4		"	"
	"	"	45	"					12 mA				"				0.7 V					"	"	A5		"	"
	"	"	46	"						12 mA			"			0.7 V						"	"	A6		"	"
	"	"	47	"							12 mA		"		0.7 V							"	"	A7		"	"
	"	"	48	"								12 mA	"	0.7 V								"	"	A8		"	"
	V_{IC}		49	-18 mA									"									5.5 V	"	DIR		-1.5	"
			50		-18 mA								"									"	"	A1		"	"
			51			-18 mA							"									"	"	A2		"	"
			52				-18 mA						"									"	"	A3		"	"
			53					-18 mA					"									"	"	A4		"	"
			54						-18 mA				"									"	"	A5		"	"
			55							-18 mA			"									"	"	A6		"	"
			56								-18 mA		"									"	"	A7		"	"
			57									-18 mA	"									"	"	A8		"	"

See footnotes at end of device type 03.

TABLE III. Group A inspection for device type 03.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Cases R, S, 2 Test no.	1 DIR	2 A1	3 A2	4 A3	5 A4	6 A5	7 A6	8 A7	9 A8	10 GND	11 B8	12 B7	13 B6	14 B5	15 B4	16 B3	17 B2	18 B1	19 $\overline{G}$	20 V_{CC}	Measured terminal	Test limits Min	Test limits Max	Unit
1 Tc = 25°C	V_{IC}		58										GND	-18 mA								5.5 V	4.5 V	B8		-1.5	V
			59										"		-18 mA							"	"	B7		"	"
			60										"			-18 mA						"	"	B6		"	"
			61										"				-18 mA					"	"	B5		"	"
			62										"					-18 mA				"	"	B4		"	"
			63										"						-18 mA			"	"	B3		"	"
			64										"							-18 mA		"	"	B2		"	"
			65										"								-18 mA	"	"	B1		"	"
			66										"									-18 mA	"	$\overline{G}$		"	"
	I_{OZH}		67		2.7 V								"									2.0 V	5.5 V	A1		10 1/	µA
			68			2.7 V							"									"	"	A2		"	"
			69				2.7 V						"									"	"	A3		"	"
			70					2.7 V					"									"	"	A4		"	"
			71						2.7 V				"									"	"	A5		"	"
			72							2.7 V			"									"	"	A6		"	"
			73								2.7 V		"									"	"	A7		"	"
			74									2.7 V	"									"	"	A8		"	"
			75										"	2.7 V								"	"	B8		"	"
			76										"		2.7 V							"	"	B7		"	"
			77										"			2.7 V						"	"	B6		"	"
			78										"				2.7 V					"	"	B5		"	"
			79										"					2.7 V				"	"	B4		"	"
			80										"						2.7 V			"	"	B3		"	"
			81										"							2.7 V		"	"	B2		"	"
			82										"								2.7 V	"	"	B1		"	"
	I_{OZL}		83		0.4 V								"									"	"	A1		-200	"
			84			0.4 V							"									"	"	A2		"	"
			85				0.4 V						"									"	"	A3		"	"
			86					0.4 V					"									"	"	A4		"	"
			87						0.4 V				"									"	"	A5		"	"
			88							0.4 V			"									"	"	A6		"	"
			89								0.4 V		"									"	"	A7		"	"
			90									0.4 V	"									"	"	A8		"	"
			91										"	0.4 V								"	"	B8		"	"
			92										"		0.4 V							"	"	B7		"	"
			93										"			0.4 V						"	"	B6		"	"
			94										"				0.4 V					"	"	B5		"	"
			95										"					0.4 V				"	"	B4		"	"
			96										"						0.4 V			"	"	B3		"	"
			97										"							0.4 V		"	"	B2		"	"
			98										"								0.4 V	"	"	B1		"	"
	I_{IL}	3009	99	0.4 V									"									5.5 V	"	DIR	-5	-200 2/	"
		"	100		0.4 V								"									"	"	A1	"	"	"
		"	101			0.4 V							"									"	"	A2	"	"	"
		"	102				0.4 V						"									"	"	A3	"	"	"
		"	103					0.4 V					"									"	"	A4	"	"	"
		"	104						0.4 V				"									"	"	A5	"	"	"
		"	105							0.4 V			"									"	"	A6	"	"	"
		"	106								0.4 V		"									"	"	A7	"	"	"
		"	107									0.4 V	"									"	"	A8	"	"	"
		"	108										"	0.4 V								"	"	B8	"	"	"
		"	109										"		0.4 V							"	"	B7	"	"	"
		"	110										"			0.4 V						"	"	B6	"	"	"
		"	111										"				0.4 V					"	"	B5	"	"	"
		"	112										"					0.4 V				"	"	B4	"	"	"
		"	113										"						0.4 V			"	"	B3	"	"	"
		"	114										"							0.4 V		"	"	B2	"	"	"
		"	115										"								0.4 V	"	"	B1	"	"	"
		"	116										"									0.4 V	"	$\overline{G}$	"	"	"

See footnotes at end of device type 03.

TABLE III. Group A inspection for device type 03.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Cases R, S, 2 Test no.	1 DIR	2 A1	3 A2	4 A3	5 A4	6 A5	7 A6	8 A7	9 A8	10 GND	11 B8	12 B7	13 B6	14 B5	15 B4	16 B3	17 B2	18 B1	19 $\overline{G}$	20 V_{CC}	Measured terminal	Test limits Min	Test limits Max	Unit
1	I_{IH1}	3010	117	2.7 V									GND									5.5 V	5.5 V	DIR		20	µA
Tc = 25°C	"	"	118		2.7 V								"									"	"	A1		"	"
	"	"	119			2.7 V							"									"	"	A2		"	"
	"	"	120				2.7 V						"									"	"	A3		"	"
	"	"	121					2.7 V					"									"	"	A4		"	"
	"	"	122						2.7 V				"									"	"	A5		"	"
	"	"	123							2.7 V			"									"	"	A6		"	"
	"	"	124								2.7 V		"									"	"	A7		"	"
	"	"	125									2.7 V	"									"	"	A8		"	"
	"	"	126										"	2.7 V								"	"	B8		"	"
	"	"	127										"		2.7 V							"	"	B7		"	"
	"	"	128										"			2.7 V						"	"	B6		"	"
	"	"	129										"				2.7 V					"	"	B5		"	"
	"	"	130										"					2.7 V				"	"	B4		"	"
	"	"	131										"						2.7 V			"	"	B3		"	"
	"	"	132										"							2.7 V		"	"	B2		"	"
	"	"	133										"								2.7 V	"	"	B1		"	"
	"	"	134										"									2.7 V	"	$\overline{G}$		"	"
	I_{IH2}	"	135	5.5 V									"									5.5 V	"	DIR		100	"
	"	"	136		5.5 V								"									"	"	A1		"	"
	"	"	137			5.5 V							"									"	"	A2		"	"
	"	"	138				5.5 V						"									"	"	A3		"	"
	"	"	139					5.5 V					"									"	"	A4		"	"
	"	"	140						5.5 V				"									"	"	A5		"	"
	"	"	141							5.5 V			"									"	"	A6		"	"
	"	"	142								5.5 V		"									"	"	A7		"	"
	"	"	143									5.5 V	"									"	"	A8		"	"
	"	"	144										"	5.5 V								"	"	B8		"	"
	"	"	145										"		5.5 V							"	"	B7		"	"
	"	"	146										"			5.5 V						"	"	B6		"	"
	"	"	147										"				5.5 V					"	"	B5		"	"
	"	"	148										"					5.5 V				"	"	B4		"	"
	"	"	149										"						5.5 V			"	"	B3		"	"
	"	"	150										"							5.5 V		"	"	B2		"	"
	"	"	151										"								5.5 V	"	"	B1		"	"
	"	"	152										"									"	"	$\overline{G}$		"	"
	I_{OS}	3011	153	5.5 V	5.5 V								GND								GND	GND	"	B1	-40	-225	mA
	"	"	154	"		5.5 V							"							GND		"	"	B2	"	"	"
	"	"	155	"			5.5 V						"						GND			"	"	B3	"	"	"
	"	"	156	"				5.5 V					"					GND				"	"	B4	"	"	"
	"	"	157	"					5.5 V				"				GND					"	"	B5	"	"	"
	"	"	158	"						5.5 V			"			GND						"	"	B6	"	"	"
	"	"	159	"							5.5 V		"		GND							"	"	B7	"	"	"
	"	"	160	"								5.5 V	"	GND								"	"	B8	"	"	"
	"	"	161	GND	GND								"								5.5 V	"	"	A1	"	"	"
	"	"	162	"		GND							"							5.5 V		"	"	A2	"	"	"
	"	"	163	"			GND						"						5.5 V			"	"	A3	"	"	"
	"	"	164	"				GND					"					5.5 V				"	"	A4	"	"	"
	"	"	165	"					GND				"				5.5 V					"	"	A5	"	"	"
	"	"	166	"						GND			"			5.5 V						"	"	A6	"	"	"
	"	"	167	"							GND		"		5.5 V							"	"	A7	"	"	"
	"	"	168	"								GND	"	5.5 V								"	"	A8	"	"	"
	I_{CCH}	3005	169	"									"	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	5.5 V	"	"	V_{CC}		70	"
	I_{CCL}	3005	170	"									"	GND	GND	GND	GND	GND	GND	GND	GND	"	"	V_{CC}		90	"
	I_{CCZ}	3005	171										"									5.5 V	"	V_{CC}		95	"

See footnotes at end of device type 03.

TABLE III. Group A inspection for device type 03.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Cases R, S, 2 Test no.	1 DIR	2 A1	3 A2	4 A3	5 A4	6 A5	7 A6	8 A7	9 A8	10 GND	11 B8	12 B7	13 B6	14 B5	15 B4	16 B3	17 B2	18 B1	19 $\overline{G}$	20 V_{CC}	Measured terminal	Test limits Min	Test limits Max	Unit
2	Same tests, terminal conditions, and limits as for subgroup 1, except Tc = 125°C and V_{IC} tests are omitted.																										
3	Same tests, terminal conditions, and limits as for subgroup 1, except Tc = -55°C and V_{IC} tests are omitted.																										
7 3/ Tc = 25°C	Truth table tests		172	A	A	A	A	A	A	A	A	A	GND	H	H	H	H	H	H	H	H	B	5.0 V			4/	
			173	A	B	B	B	B	B	B	B	B	"	L	L	L	L	L	L	L	L	B	"				
			174	B	H	H	H	H	H	H	H	H	"	A	A	A	A	A	A	A	A	B	"				
			175	B	L	L	L	L	L	L	L	L	"	B	B	B	B	B	B	B	B	B	"				
			176	B	H	H	H	H	H	H	H	H	"	H	H	H	H	H	H	H	H	A	"			5/ (test 176 only)	
8	Same tests and terminal conditions as for subgroup 7, except Tc = +125°C and Tc = -55°C.																										
9 Tc = 25°C	t_{PHL2}	3003 See fig. 3	177	GND	OUT								GND								IN	GND	5.0 V	B1 to A1	2	17	ns
		"	178	"		OUT							"							IN		"	"	B2 to A2	"	"	"
		"	179	"			OUT						"						IN			"	"	B3 to A3	"	"	"
		"	180	"				OUT					"					IN				"	"	B4 to A4	"	"	"
		"	181	"					OUT				"				IN					"	"	B5 to A5	"	"	"
		"	182	"						OUT			"			IN						"	"	B6 to A6	"	"	"
		"	183	"							OUT		"		IN							"	"	B7 to A7	"	"	"
		"	184	"								OUT	"	IN								"	"	B8 to A8	"	"	"
		"	185	4.5 V	IN								"								OUT	"	"	A1 to B1	"	"	"
		"	186	"		IN							"							OUT		"	"	A2 to B2	"	"	"
		"	187	"			IN						"						OUT			"	"	A3 to B3	"	"	"
		"	188	"				IN					"					OUT				"	"	A4 to B4	"	"	"
		"	189	"					IN				"				OUT					"	"	A5 to B5	"	"	"
		"	190	"						IN			"			OUT						"	"	A6 to B6	"	"	"
		"	191	"							IN		"		OUT							"	"	A7 to B7	"	"	"
		"	192	"								IN	"	OUT								"	"	A8 to B8	"	"	"
	t_{PLH2}	"	193	4.5 V	IN								"								OUT	"	"	A1 to B1	"	"	"
		"	194	"		IN							"							OUT		"	"	A2 to B2	"	"	"
		"	195	"			IN						"						OUT			"	"	A3 to B3	"	"	"
		"	196	"				IN					"					OUT				"	"	A4 to B4	"	"	"
		"	197	"					IN				"				OUT					"	"	A5 to B5	"	"	"
		"	198	"						IN			"			OUT						"	"	A6 to B6	"	"	"
		"	199	"							IN		"		OUT							"	"	A7 to B7	"	"	"
		"	200	"								IN	"	OUT								"	"	A8 to B8	"	"	"
		"	201	GND	OUT								"								IN	"	"	B1 to A1	"	"	"
		"	202	"		OUT							"							IN		"	"	B2 to A2	"	"	"
		"	203	"			OUT						"						IN			"	"	B3 to A3	"	"	"
		"	204	"				OUT					"					IN				"	"	B4 to A4	"	"	"
		"	205	"					OUT				"				IN					"	"	B5 to A5	"	"	"
		"	206	"						OUT			"			IN						"	"	B6 to A6	"	"	"
		"	207	"							OUT		"		IN							"	"	B7 to A7	"	"	"
		"	208	"								OUT	"	IN								"	"	B8 to A8	"	"	"
	t_{PZL1}	"	209	"	OUT								"								GND	IN	"	$\overline{G}$ to A1	"	45	"
		"	210	"		OUT							"							GND		"	"	$\overline{G}$ to A2	"	"	"
		"	211	"			OUT						"						GND			"	"	$\overline{G}$ to A3	"	"	"
		"	212	"				OUT					"					GND				"	"	$\overline{G}$ to A4	"	"	"
		"	213	"					OUT				"				GND					"	"	$\overline{G}$ to A5	"	"	"
		"	214	"						OUT			"			GND						"	"	$\overline{G}$ to A6	"	"	"
		"	215	"							OUT		"		GND							"	"	$\overline{G}$ to A7	"	"	"
		"	216	"								OUT	"	GND								"	"	$\overline{G}$ to A8	"	"	"

TABLE III. Group A inspection for device type 03.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Cases R, S, 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Measured	Test limits		Unit
		method	Test no.	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	V_{CC}	terminal	Min	Max	
9	t_{PZL1}	3003	217	4.5 V	GND								GND								OUT	IN	5.0 V	$\overline{G}$ to B1	2	45	ns
Tc = 25°C		See fig. 3	218	"		GND							"							OUT		"	"	$\overline{G}$ to B2	"	"	"
		"	219	"			GND						"						OUT			"	"	$\overline{G}$ to B3	"	"	"
		"	220	"				GND					"					OUT				"	"	$\overline{G}$ to B4	"	"	"
		"	221	"					GND				"				OUT					"	"	$\overline{G}$ to B5	"	"	"
		"	222	"						GND			"			OUT						"	"	$\overline{G}$ to B6	"	"	"
		"	223	"							GND		"		OUT							"	"	$\overline{G}$ to B7	"	"	"
		"	224	"								GND	"	OUT								"	"	$\overline{G}$ to B8	"	"	"
	t_{PZH1}	"	225	"	4.5 V								"								OUT	"	"	$\overline{G}$ to B1	"	"	"
		"	226	"		4.5 V							"							OUT		"	"	$\overline{G}$ to B2	"	"	"
		"	227	"			4.5 V						"						OUT			"	"	$\overline{G}$ to B3	"	"	"
		"	228	"				4.5 V					"					OUT				"	"	$\overline{G}$ to B4	"	"	"
		"	229	"					4.5 V				"				OUT					"	"	$\overline{G}$ to B5	"	"	"
		"	230	"						4.5 V			"			OUT						"	"	$\overline{G}$ to B6	"	"	"
		"	231	"							4.5 V		"		OUT							"	"	$\overline{G}$ to B7	"	"	"
		"	232	"								4.5 V	"	OUT								"	"	$\overline{G}$ to B8	"	"	"
		"	233	GND	OUT								"								4.5 V	"	"	$\overline{G}$ to A1	"	"	"
		"	234	"		OUT							"							4.5 V		"	"	$\overline{G}$ to A2	"	"	"
		"	235	"			OUT						"						4.5 V			"	"	$\overline{G}$ to A3	"	"	"
		"	236	"				OUT					"					4.5 V				"	"	$\overline{G}$ to A4	"	"	"
		"	237	"					OUT				"				4.5 V					"	"	$\overline{G}$ to A5	"	"	"
		"	238	"						OUT			"			4.5 V						"	"	$\overline{G}$ to A6	"	"	"
		"	239	"							OUT		"		4.5 V							"	"	$\overline{G}$ to A7	"	"	"
		"	240	"								OUT	"	4.5 V								"	"	$\overline{G}$ to A8	"	"	"
	t_{PLZ1}	"	241	"	OUT								"								GND	"	"	$\overline{G}$ to A1	"	30	"
		"	242	"		OUT							"							GND		"	"	$\overline{G}$ to A2	"	"	"
		"	243	"			OUT						"						GND			"	"	$\overline{G}$ to A3	"	"	"
		"	244	"				OUT					"					GND				"	"	$\overline{G}$ to A4	"	"	"
		"	245	"					OUT D				"				GND					"	"	$\overline{G}$ to A5	"	"	"
		"	246	"						OUT			"			GND						"	"	$\overline{G}$ to A6	"	"	"
		"	247	"							OUT		"		GND							"	"	$\overline{G}$ to A7	"	"	"
		"	248	"								OUT	"	GND								"	"	$\overline{G}$ to A8	"	"	"

TABLE III. Group A inspection for device type 03.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Cases R, S, 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Measured	Test limits		Unit
		method	Test no.	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	V_{CC}	terminal	Min	Max	
9	t_{PLZ1}	3003	249	4.5 V	GND								GND								OUT	IN	5.0 V	$\overline{G}$ to B1	2	30	ns
Tc = 25°C		See fig. 3	250	"		GND							"							OUT		"	"	$\overline{G}$ to B2	"	"	"
		"	251	"			GND						"						OUT			"	"	$\overline{G}$ to B3	"	"	"
		"	252	"				GND					"					OUT				"	"	$\overline{G}$ to B4	"	"	"
		"	253	"					GND				"				OUT					"	"	$\overline{G}$ to B5	"	"	"
		"	254	"						GND			"			OUT						"	"	$\overline{G}$ to B6	"	"	"
		"	255	"							GND		"		OUT							"	"	$\overline{G}$ to B7	"	"	"
		"	256	"								GND	"	OUT								"	"	$\overline{G}$ to B8	"	"	"
	t_{PHZ1}	"	257	"	4.5 V								"								OUT	"	"	$\overline{G}$ to B1	"	"	"
		"	258	"		4.5 V							"							OUT		"	"	$\overline{G}$ to B2	"	"	"
		"	259	"			4.5 V						"						OUT			"	"	$\overline{G}$ to B3	"	"	"
		"	260	"				4.5 V					"					OUT				"	"	$\overline{G}$ to B4	"	"	"
		"	261	"					4.5 V				"				OUT					"	"	$\overline{G}$ to B5	"	"	"
		"	262	"						4.5 V			"			OUT						"	"	$\overline{G}$ to B6	"	"	"
		"	263	"							4.5 V		"		OUT							"	"	$\overline{G}$ to B7	"	"	"
		"	264	"								4.5 V	"	OUT								"	"	$\overline{G}$ to B8	"	"	"
		"	265	GND	OUT								"								4.5 V	"	"	$\overline{G}$ to A1	"	"	"
		"	266	"		OUT							"							4.5 V		"	"	$\overline{G}$ to A2	"	"	"
		"	267	"			OUT						"						4.5 V			"	"	$\overline{G}$ to A3	"	"	"
		"	268	"				OUT					"					4.5 V				"	"	$\overline{G}$ to A4	"	"	"
		"	269	"					OUT				"				4.5 V					"	"	$\overline{G}$ to A5	"	"	"
		"	270	"						OUT			"			4.5 V						"	"	$\overline{G}$ to A6	"	"	"
		"	271	"							OUT		"		4.5 V							"	"	$\overline{G}$ to A7	"	"	"
		"	272	"								OUT	"	4.5 V								"	"	$\overline{G}$ to A8	"	"	"
10	t_{PHL2}	Same tests, terminal conditions, and limits as for subgroup 9, except Tc = 125°C.																							"	22	"
	t_{PLH2}																								"	22	"
	t_{PZL1}																								"	58	"
	t_{PZH1}																								"	58	"
	t_{PLZ1}																								"	39	"
	t_{PHZ1}																								"	39	"
11	Same tests, terminal conditions, and limits as for subgroup 9, except Tc = 125°C.																										

1/ The I_{OZH} limits for circuit B and E are +20 µA maximum.
2/ The I_{IL} limits for circuit E are -5µA minimum, -240 µA maximum.
3/ A = 3.0 V minimum; B = 0.0 V or GND.
4/ H > 1.5 V; L < 1.5 V.
5/ Add resistor of 0.5 kΩ to 5 kΩ between V_{CC} and each output.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
1	V_{OH1}	3006	1	0.5 V	0.5 V	2.0 V	2.0 V								GND	B1	2.4		V
Tc = 25°C		"	2	"	"	"		2.0 V							"	B2	"		"
		"	3	"	"	"			2.0 V						"	B3	"		"
		"	4	"	"	"				2.0 V					"	B4	"		"
		"	5	"	"	"					2.0 V				"	B5	"		"
		"	6	"	"	"						2.0 V			"	B6	"		"
		"	7	"	"	"							2.0 V		"	B7	"		"
		"	8	"	"	"								2.0 V	"	B8	"		"
		"	9	"	"	0.5 V	-3 mA								"	A1	"		"
		"	10	"	"	"		-3 mA							"	A2	"		"
		"	11	"	"	"			-3 mA						"	A3	"		"
		"	12	"	"	"				-3 mA					"	A4	"		"
		"	13	"	"	"					-3 mA				"	A5	"		"
		"	14	"	"	"						-3 mA			"	A6	"		"
		"	15	"	"	"							-3 mA		"	A7	"		"
		"	16	"	"	"								-3 mA	"	A8	"		"
	V_{OH2}	"	17	"	"	2.0 V	2.0 V								"	B1	2.0		"
		"	18	"	"	"		2.0 V							"	B2	"		"
		"	19	"	"	"			2.0 V						"	B3	"		"
		"	20	"	"	"				2.0 V					"	B4	"		"
		"	21	"	"	"					2.0 V				"	B5	"		"
		"	22	"	"	"						2.0 V			"	B6	"		"
		"	23	"	"	"							2.0 V		"	B7	"		"
		"	24	"	"	"								2.0 V	"	B8	"		"
		"	25	"	"	0.5 V	-12 mA								"	A1	"		"
		"	26	"	"	"		-12 mA							"	A2	"		"
		"	27	"	"	"			-12 mA						"	A3	"		"
		"	28	"	"	"				-12 mA					"	A4	"		"
		"	29	"	"	"					-12 mA				"	A5	"		"
		"	30	"	"	"						-12 mA			"	A6	"		"
		"	31	"	"	"							-12 mA		"	A7	"		"
		"	32	"	"	"								-12 mA	"	A8	"		"
	V_{OL}	"	33	"	"	2.0 V	0.5 V								"	B1		0.4	"
		"	34	"	"	"		0.5 V							"	B2		"	"
		"	35	"	"	"			0.5 V						"	B3		"	"
		"	36	"	"	"				0.5 V					"	B4		"	"
		"	37	"	"	"					0.5 V				"	B5		"	"
		"	38	"	"	"						0.5 V			"	B6		"	"
		"	39	"	"	"							0.5 V		"	B7		"	"
		"	40	"	"	"								0.5 V	"	B8		"	"
		"	41	"	"	0.5 V	12 mA								"	A1		"	"
		"	42	"	"	"		12 mA							"	A2		"	"
		"	43	"	"	"			12 mA						"	A3		"	"
		"	44	"	"	"				12 mA					"	A4		"	"
		"	45	"	"	"					12 mA				"	A5		"	"
		"	46	"	"	"						12 mA			"	A6		"	"
		"	47	"	"	"							12 mA		"	A7		"	"
		"	48	"	"	"								12 mA	"	A8		"	"
	V_{IC}	"	49	-18 mA											"	CAB		-1.5	"
		"	50		-18 mA										"	SAB		"	"
		"	51			-18 mA									"	DIR		"	"
		"	52				-18 mA								"	A1		"	"
		"	53					-18 mA							"	A2		"	"
		"	54						-18 mA						"	A3		"	"
		"	55							-18 mA					"	A4		"	"
		"	56								-18 mA				"	A5		"	"
		"	57									-18 mA			"	A6		"	"
		"	58										-18 mA		"	A7		"	"
		"	59											-18 mA	"	A8		"	"

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L Test no.	13 B8	14 B7	15 B6	16 B5	17 B4	18 B3	19 B2	20 B1	21 $\overline{G}$	22 SEL BA	23 CLK BA	24 V_{CC}	Measured terminal	Test Limits Min	Test Limits Max	Unit
1 Tc = 25°C	V_{OH1}	3006	1								-3 mA	0.5 V	0.5 V	0.5 V	4.5 V	B1	2.4		V
		"	2							-3 mA		"	"	"	"	B2	"		"
		"	3						-3 mA			"	"	"	"	B3	"		"
		"	4					-3 mA				"	"	"	"	B4	"		"
		"	5				-3 mA					"	"	"	"	B5	"		"
		"	6			-3 mA						"	"	"	"	B6	"		"
		"	7		-3 mA							"	"	"	"	B7	"		"
		"	8	-3 mA								"	"	"	"	B8	"		"
		"	9								2.0 V	"	"	"	"	A1	"		"
		"	10							2.0 V		"	"	"	"	A2	"		"
		"	11						2.0 V			"	"	"	"	A3	"		"
		"	12					2.0 V				"	"	"	"	A4	"		"
		"	13				2.0 V					"	"	"	"	A5	"		"
		"	14			2.0 V						"	"	"	"	A6	"		"
		"	15		2.0 V							"	"	"	"	A7	"		"
		"	16	2.0 V								"	"	"	"	A8	"		"
	V_{OH2}	"	17								-12 mA	"	"	"	"	B1	2.0		"
		"	18							-12 mA		"	"	"	"	B2	"		"
		"	19						-12 mA			"	"	"	"	B3	"		"
		"	20					-12 mA				"	"	"	"	B4	"		"
		"	21				-12 mA					"	"	"	"	B5	"		"
		"	22			-12 mA						"	"	"	"	B6	"		"
		"	23		-12 mA							"	"	"	"	B7	"		"
		"	24	-12 mA								"	"	"	"	B8	"		"
		"	25								2.0 V	"	"	"	"	A1	"		"
		"	26							2.0 V		"	"	"	"	A2	"		"
		"	27						2.0 V			"	"	"	"	A3	"		"
		"	28					2.0 V				"	"	"	"	A4	"		"
		"	29				2.0 V					"	"	"	"	A5	"		"
		"	30			2.0 V						"	"	"	"	A6	"		"
		"	31		2.0 V							"	"	"	"	A7	"		"
		"	32	2.0 V								"	"	"	"	A8	"		"
	V_{OL}	"	33								12 mA	"	"	"	"	B1		0.4	"
		"	34							12 mA		"	"	"	"	B2		"	"
		"	35						12 mA			"	"	"	"	B3		"	"
		"	36					12 mA				"	"	"	"	B4		"	"
		"	37				12 mA					"	"	"	"	B5		"	"
		"	38			12 mA						"	"	"	"	B6		"	"
		"	39		12 mA							"	"	"	"	B7		"	"
		"	40	12 mA								"	"	"	"	B8		"	"
		"	41								0.5 V	"	"	"	"	A1		"	"
		"	42							0.5 V		"	"	"	"	A2		"	"
		"	43						0.5 V			"	"	"	"	A3		"	"
		"	44					0.5 V				"	"	"	"	A4		"	"
		"	45				0.5 V					"	"	"	"	A5		"	"
		"	46			0.5 V						"	"	"	"	A6		"	"
		"	47		0.5 V							"	"	"	"	A7		"	"
		"	48	0.5 V								"	"	"	"	A8		"	"
	$V_{I C}$	"	49												"	CAB		-1.5	"
		"	50												"	SAB		"	"
		"	51												"	DIR		"	"
		"	52												"	A1		"	"
		"	53												"	A2		"	"
		"	54												"	A3		"	"
		"	55												"	A4		"	"
		"	56												"	A5		"	"
		"	57												"	A6		"	"
		"	58												"	A7		"	"
		"	59												"	A8		"	"

See footnotes at end of device type 04.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
1	V_{IC}		60												GND	B8		-1.5	V
Tc = 25°C			61												"	B7		"	"
			62												"	B6		"	"
			63												"	B5		"	"
			64												"	B4		"	"
			65												"	B3		"	"
			66												"	B2		"	"
			67												"	B1		"	"
			68												"	$\overline{G}$		"	"
			69												"	SBA		"	"
			70												"	CBA		"	"
	I_{IL}	3009	71	0.4 V											"	CAB	0	-200	µA
		"	72		0.4 V										"	SAB	"	"	"
		"	73			0.4 V									"	DIR	"	"	"
		"	74				0.4 V								"	A1	"	"	"
		"	75					0.4 V							"	A2	"	"	"
		"	76						0.4 V						"	A3	"	"	"
		"	77							0.4 V					"	A4	"	"	"
		"	78								0.4 V				"	A5	"	"	"
		"	79									0.4 V			"	A6	"	"	"
		"	80										0.4 V		"	A7	"	"	"
		"	81											0.4 V	"	A8	"	"	"
		"	82												"	B8	"	"	"
		"	83												"	B7	"	"	"
		"	84												"	B6	"	"	"
		"	85												"	B5	"	"	"
		"	86												"	B4	"	"	"
		"	87												"	B3	"	"	"
		"	88												"	B2	"	"	"
		"	89												"	B1	"	"	"
		"	90												"	$\overline{G}$	"	"	"
		"	91												"	SBA	"	"	"
		"	92												"	CBA	"	"	"
	I_{IH1}	3010	93	2.7 V											"	CAB		20	"
		"	94		2.7 V										"	SAB		"	"
		"	95			2.7 V									"	DIR		"	"
		"	96				2.7 V								"	A1		"	"
		"	97					2.7 V							"	A2		"	"
		"	98						2.7 V						"	A3		"	"
		"	99							2.7 V					"	A4		"	"
		"	100								2.7 V				"	A5		"	"
		"	101									2.7 V			"	A6		"	"
		"	102										2.7 V		"	A7		"	"
		"	103											2.7 V	"	A8		"	"
		"	104												"	B8		"	"
		"	105												"	B7		"	"
		"	106												"	B6		"	"
		"	107												"	B5		"	"
		"	108												"	B4		"	"
		"	109												"	B3		"	"
		"	110												"	B2		"	"
		"	111												"	B1		"	"
		"	112												"	$\overline{G}$		"	"
		"	113												"	SBA		"	"
		"	114												"	CBA		"	"

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured terminal	Test Limits		Unit
			Test no.	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	SEL BA	CLK BA	V_{CC}		Min	Max	
1	V_{IC}		60	-18 mA											4.5 V	B8		-1.5	V
Tc = 25°C			61		-18 mA										"	B7		"	"
			62			-18 mA									"	B6		"	"
			63				-18 mA								"	B5		"	"
			64					-18 mA							"	B4		"	"
			65						-18 mA						"	B3		"	"
			66							-18 mA					"	B2		"	"
			67								-18 mA				"	B1		"	"
			68									-18 mA			"	$\overline{G}$		"	"
			69										-18 mA		"	SBA		"	"
			70											-18 mA	"	CBA		"	"
	I_{IL}	3009	71												5.5 V	CAB	0	-200	µA
		"	72												"	SAB	"	"	"
		"	73												"	DIR	"	"	"
		"	74												"	A1	"	"	"
		"	75												"	A2	"	"	"
		"	76												"	A3	"	"	"
		"	77												"	A4	"	"	"
		"	78												"	A5	"	"	"
		"	79												"	A6	"	"	"
		"	80												"	A7	"	"	"
		"	81												"	A8	"	"	"
		"	82	0.4 V											"	B8	"	"	"
		"	83		0.4 V										"	B7	"	"	"
		"	84			0.4 V									"	B6	"	"	"
		"	85				0.4 V								"	B5	"	"	"
		"	86					0.4 V							"	B4	"	"	"
		"	87						0.4 V						"	B3	"	"	"
		"	88							0.4 V					"	B2	"	"	"
		"	89								0.4 V				"	B1	"	"	"
		"	90									0.4 V			"	$\overline{G}$	"	"	"
		"	91										0.4 V		"	SBA	"	"	"
		"	92											0.4 V	"	CBA	"	"	"
	I_{IH1}	3010	93												"	CAB		20	"
		"	94												"	SAB		"	"
		"	95												"	DIR		"	"
		"	96												"	A1		"	"
		"	97												"	A2		"	"
		"	98												"	A3		"	"
		"	99												"	A4		"	"
		"	100												"	A5		"	"
		"	101												"	A6		"	"
		"	102												"	A7		"	"
		"	103												"	A8		"	"
		"	104	2.7 V											"	B8		"	"
		"	105		2.7 V										"	B7		"	"
		"	106			2.7 V									"	B6		"	"
		"	107				2.7 V								"	B5		"	"
		"	108					2.7 V							"	B4		"	"
		"	109						2.7 V						"	B3		"	"
		"	110							2.7 V					"	B2		"	"
		"	111								2.7 V				"	B1		"	"
		"	112									2.7 V			"	$\overline{G}$		"	"
		"	113										2.7 V		"	SBA		"	"
		"	114											2.7 V	"	CBA		"	"

See footnotes at end of device type 04.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
1	I_{IH2}	3010	115	5.5 V											GND	CAB		100	µA
Tc = 25°C	"	"	116		5.5 V										"	SAB		"	"
	"	"	117			5.5 V									"	DIR		"	"
	"	"	118				5.5 V								"	A1		"	"
	"	"	119					5.5 V							"	A2		"	"
	"	"	120						5.5 V						"	A3		"	"
	"	"	121							5.5 V					"	A4		"	"
	"	"	122								5.5 V				"	A5		"	"
	"	"	123									5.5 V			"	A6		"	"
	"	"	124										5.5 V		"	A7		"	"
	"	"	125											5.5 V	"	A8		"	"
	"	"	126												"	B8		"	"
	"	"	127												"	B7		"	"
	"	"	128												"	B6		"	"
	"	"	129												"	B5		"	"
	"	"	130												"	B4		"	"
	"	"	131												"	B3		"	"
	"	"	132												"	B2		"	"
	"	"	133												"	B1		"	"
	"	"	134												"	$\overline{G}$		"	"
	"	"	135												"	SBA		"	"
	"	"	136												"	CBA		"	"
	I_{OZL}		137				0.4 V								"	A1		-400	"
			138					0.4 V							"	A2		"	"
			139						0.4 V						"	A3		"	"
			140							0.4 V					"	A4		"	"
			141								0.4 V				"	A5		"	"
			142									0.4 V			"	A6		"	"
			143										0.4 V		"	A7		"	"
			144											0.4 V	"	A8		"	"
			145												"	B8		"	"
			146												"	B7		"	"
			147												"	B6		"	"
			148												"	B5		"	"
			149												"	B4		"	"
			150												"	B3		"	"
			151												"	B2		"	"
			152												"	B1		"	"
	I_{OZH}		153				2.7 V								"	A1		20	"
			154					2.7 V							"	A2		"	"
			155						2.7 V						"	A3		"	"
			156							2.7 V					"	A4		"	"
			157								2.7 V				"	A5		"	"
			158									2.7 V			"	A6		"	"
			159										2.7 V		"	A7		"	"
			160											2.7 V	"	A8		"	"
			161												"	B8		"	"
			162												"	B7		"	"
			163												"	B6		"	"
			164												"	B5		"	"
			165												"	B4		"	"
			166												"	B3		"	"
			167												"	B2		"	"
			168												"	B1		"	"

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L Test no.	13 B8	14 B7	15 B6	16 B5	17 B4	18 B3	19 B2	20 B1	21 $\overline{G}$	22 SEL BA	23 CLK BA	24 V_{CC}	Measured terminal	Test Limits Min	Test Limits Max	Unit
1 Tc = 25°C	I_{IH2}	3010	115												5.5 V	CAB		100	µA
		"	116												"	SAB		"	"
		"	117												"	DIR		"	"
		"	118												"	A1		"	"
		"	119												"	A2		"	"
		"	120												"	A3		"	"
		"	121												"	A4		"	"
		"	122												"	A5		"	"
		"	123												"	A6		"	"
		"	124												"	A7		"	"
		"	125												"	A8		"	"
		"	126	5.5 V											"	B8		"	"
		"	127		5.5 V										"	B7		"	"
		"	128			5.5 V									"	B6		"	"
		"	129				5.5 V								"	B5		"	"
		"	130					5.5 V							"	B4		"	"
		"	131						5.5 V						"	B3		"	"
		"	132							5.5 V					"	B2		"	"
		"	133								5.5 V				"	B1		"	"
		"	134									5.5 V			"	$\overline{G}$		"	"
		"	135										5.5 V		"	SBA		"	"
		"	136											5.5 V	"	CBA		"	"
	I_{OZL}		137									2.0 V			"	A1		-400	"
			138									"			"	A2		"	"
			139									"			"	A3		"	"
			140									"			"	A4		"	"
			141									"			"	A5		"	"
			142									"			"	A6		"	"
			143									"			"	A7		"	"
			144									"			"	A8		"	"
			145	0.4 V								"			"	B8		"	"
			146		0.4 V							"			"	B7		"	"
			147			0.4 V						"			"	B6		"	"
			148				0.4 V					"			"	B5		"	"
			149					0.4 V				"			"	B4		"	"
			150						0.4 V			"			"	B3		"	"
			151							0.4 V		"			"	B2		"	"
			152								0.4 V	"			"	B1		"	"
	I_{OZH}		153									"			"	A1		20	"
			154									"			"	A2		"	"
			155									"			"	A3		"	"
			156									"			"	A4		"	"
			157									"			"	A5		"	"
			158									"			"	A6		"	"
			159									"			"	A7		"	"
			160									"			"	A8		"	"
			161	2.7 V								"			"	B8		"	"
			162		2.7 V							"			"	B7		"	"
			163			2.7 V						"			"	B6		"	"
			164				2.7 V					"			"	B5		"	"
			165					2.7 V				"			"	B4		"	"
			166						2.7 V			"			"	B3		"	"
			167							2.7 V		"			"	B2		"	"
			168								2.7 V	"			"	B1		"	"

See footnotes at end of device type 04.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
1	I_{OS}	3011	169	GND	GND	4.5 V	4.5 V								GND	B1	-40	-225	mA
Tc = 25°C		"	170	"	"	"		4.5 V							"	B2	"	"	"
		"	171	"	"	"			4.5 V						"	B3	"	"	"
		"	172	"	"	"				4.5 V					"	B4	"	"	"
		"	173	"	"	"					4.5 V				"	B5	"	"	"
		"	174	"	"	"						4.5 V			"	B6	"	"	"
		"	175	"	"	"							4.5 V		"	B7	"	"	"
		"	176	"	"	"								4.5 V	"	B8	"	"	"
		"	177	"	"	GND	GND								"	A1	"	"	"
		"	178	"	"	"		GND							"	A2	"	"	"
		"	179	"	"	"			GND						"	A3	"	"	"
		"	180	"	"	"				GND					"	A4	"	"	"
		"	181	"	"	"					GND				"	A5	"	"	"
		"	182	"	"	"						GND			"	A6	"	"	"
		"	183	"	"	"							GND		"	A7	"	"	"
		"	184	"	"	"								GND	"	A8	"	"	"
	I_{CCH}	3005	185	"	"	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	"	V_{CC}		145	"
	I_{CCL}	"	186	"	"	4.5 V	GND	GND	GND	GND	GND	GND	GND	GND	"	V_{CC}		165	"
	I_{CCZ}	"	187	"	"	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	"	V_{CC}		165	"
2	Same tests, terminal conditions, and limits as subgroup 1, except T_C = +125°C and omit $V_{I C}$ tests.																		
3	Same tests, terminal conditions, and limits as subgroup 1, except T_C = -55°C and omit $V_{I C}$ tests.																		
7	Truth		188	B	B	A	A	A	A	A	A	A	A	A	GND	2/, 3/			
Tc = 25°C	table		189	"	"	A	B	B	B	B	B	B	B	B	"				
	tests		190	"	"	B	H	H	H	H	H	H	H	H	"				
	1/		191	"	"	B	L	L	L	L	L	L	L	L	"				
			192	"	A	A	A	A	A	A	A	A	A	A	"				
			193	A	"	"	A	A	A	A	A	A	A	A	"				
			194	B	"	"	B	B	B	B	B	B	B	B	"				
			195	A	"	"	B	B	B	B	B	B	B	B	"				
			196	B	B	B	L	L	L	L	L	L	L	L	"				
			197	"	"	"	H	H	H	H	H	H	H	H	"				
			198	"	"	"	H	H	H	H	H	H	H	H	"				
			199	"	"	"	L	L	L	L	L	L	L	L	"				
			200	"	"	"	L	L	L	L	L	L	L	L	"				
8	Same tests and terminal conditions as subgroup 7, except T_C = +125°C and T_C = -55°C.																		
9	t_{PLH1}	3003	201	IN	4.5 V	4.5 V	IN								GND	CAB to B1	2	30	ns
		(fig. 3)	202	"	"	"		IN							"	CAB to B2		"	"
		"	203	"	"	"			IN						"	CAB to B3		"	"
		"	204	"	"	"				IN					"	CAB to B4		"	"
		"	205	"	"	"					IN				"	CAB to B5		"	"
		"	206	"	"	"						IN			"	CAB to B6		"	"
		"	207	"	"	"							IN		"	CAB to B7		"	"
		"	208	"	"	"								IN	"	CAB to B8		"	"
		"	209	GND	GND	GND	OUT								"	CBA to A1		"	"
		"	210	"	"	"		OUT							"	CBA to A2		"	"
		"	211	"	"	"			OUT						"	CBA to A3		"	"
		"	212	"	"	"				OUT					"	CBA to A4		"	"
		"	213	"	"	"					OUT				"	CBA to A5		"	"
		"	214	"	"	"						OUT			"	CBA to A6		"	"
		"	215	"	"	"							OUT		"	CBA to A7		"	"
		"	216	"	"	"								OUT	"	CBA to A8		"	"

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L Test no.	13 B8	14 B7	15 B6	16 B5	17 B4	18 B3	19 B2	20 B1	21 $\overline{G}$	22 SEL BA	23 CLK BA	24 V_{CC}	Measured terminal	Test Limits Min	Test Limits Max	Unit
1	I_{OS}	3011	169								GND	GND	GND	GND	5.5 V	B1	-40	-225	mA
Tc = 25°C		"	170							GND		"	"	"	"	B2	"	"	"
		"	171						GND			"	"	"	"	B3	"	"	"
		"	172					GND				"	"	"	"	B4	"	"	"
		"	173				GND					"	"	"	"	B5	"	"	"
		"	174			GND						"	"	"	"	B6	"	"	"
		"	175		GND							"	"	"	"	B7	"	"	"
		"	176	GND								"	"	"	"	B8	"	"	"
		"	177								5.5 V	"	"	"	"	A1	"	"	"
		"	178							0.5 V		"	"	"	"	A2	"	"	"
		"	179						0.5 V			"	"	"	"	A3	"	"	"
		"	180					0.5 V				"	"	"	"	A4	"	"	"
		"	181				0.5 V					"	"	"	"	A5	"	"	"
		"	182			0.5 V						"	"	"	"	A6	"	"	"
		"	183		0.5 V							"	"	"	"	A7	"	"	"
		"	184	0.5 V								"	"	"	"	A8	"	"	"
	I_{CCH}	3005	185									"	"	"	"	V_{CC}		145	"
	I_{CCL}	"	186									"	"	"	"	V_{CC}		165	"
	I_{CCZ}	"	187									4.5 V	"	"	"	V_{CC}		165	"
2	Same tests, terminal conditions, and limits as subgroup 1, except T_C = +125°C and omit V_{IC} tests.																		
3	Same tests, terminal conditions, and limits as subgroup 1, except T_C = -55°C and omit V_{IC} tests.																		
7	Truth		188	H	H	H	H	H	H	H	H	B	B	B	4.5 V	2/, 3/			
Tc = 25°C	table		189	L	L	L	L	L	L	L	L	"	"	"	"				
	tests		190	A	A	A	A	A	A	A	A	"	"	"	"				
	1/		191	B	B	B	B	B	B	B	B	"	"	"	"				
			192	L	L	L	L	L	L	L	L	"	"	"	"				
			193	H	H	H	H	H	H	H	H	"	"	"	"				
			194	H	H	H	H	H	H	H	H	"	"	"	"				
			195	L	L	L	L	L	L	L	L	"	"	"	"				
			196	A	A	A	A	A	A	A	A	"	A	"	"				
			197	A	A	A	A	A	A	A	A	"	"	A	"				
			198	B	B	B	B	B	B	B	B	"	"	B	"				
			199	"	"	"	"	"	"	"	"	"	"	A	"				
			200	"	"	"	"	"	"	"	"	"	"	B	"				
8	Same tests and terminal conditions as subgroup 7, except T_C = +125°C and T_C = -55°C.																		
9	t_{PLH1}	3003	201								OUT	GND	GND	GND	5.0 V	CAB to B1	2	30	ns
Tc = 25°C		(fig. 3)	202							OUT		"	"	"	"	CAB to B2	"	"	"
		"	203						OUT			"	"	"	"	CAB to B3	"	"	"
		"	204					OUT				"	"	"	"	CAB to B4	"	"	"
		"	205				OUT					"	"	"	"	CAB to B5	"	"	"
		"	206			OUT						"	"	"	"	CAB to B6	"	"	"
		"	207		OUT							"	"	"	"	CAB to B7	"	"	"
		"	208	OUT								"	"	"	"	CAB to B8	"	"	"
		"	209								IN	"	4.5 V	IN	"	CBA to A1	"	"	"
		"	210							IN		"	"	"	"	CBA to A2	"	"	"
		"	211						IN			"	"	"	"	CBA to A3	"	"	"
		"	212					IN				"	"	"	"	CBA to A4	"	"	"
		"	213				IN					"	"	"	"	CBA to A5	"	"	"
		"	214			IN						"	"	"	"	CBA to A6	"	"	"
		"	215		IN							"	"	"	"	CBA to A7	"	"	"
		"	216	IN								"	"	"	"	CBA to A8	"	"	"

See footnotes at end of device type 04.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
9	t_{PHL1}	3003	217	IN	4.5 V	4.5 V	IN								GND	CAB to B1	2	40	ns
Tc = 25°C		(fig. 3)	218	"	"	"		IN							"	CAB to B2	"	"	"
		"	219	"	"	"			IN						"	CAB to B3	"	"	"
		"	220	"	"	"				IN					"	CAB to B4	"	"	"
		"	221	"	"	"					IN				"	CAB to B5	"	"	"
		"	222	"	"	"						IN			"	CAB to B6	"	"	"
		"	223	"	"	"							IN		"	CAB to B7	"	"	"
		"	224	"	"	"								IN	"	CAB to B8	"	"	"
		"	225	GND	GND	GND	OUT								"	CBA to A1	"	"	"
		"	226	"	"	"		OUT							"	CBA to A2	"	"	"
		"	227	"	"	"			OUT						"	CBA to A3	"	"	"
		"	228	"	"	"				OUT					"	CBA to A4	"	"	"
		"	229	"	"	"					OUT				"	CBA to A5	"	"	"
		"	230	"	"	"						OUT			"	CBA to A6	"	"	"
		"	231	"	"	"							OUT		"	CBA to A7	"	"	"
		"	232	"	"	"								OUT	"	CBA to A8	"	"	"
	t_{PLH2}	"	233	"	"	4.5 V	IN								"	A1 to B1	"	23	"
		"	234	"	"	"		IN							"	A2 to B2	"	"	"
		"	235	"	"	"			IN						"	A3 to B3	"	"	"
		"	236	"	"	"				IN					"	A4 to B4	"	"	"
		"	237	"	"	"					IN				"	A5 to B5	"	"	"
		"	238	"	"	"						IN			"	A6 to B6	"	"	"
		"	239	"	"	"							IN		"	A7 to B7	"	"	"
		"	240	"	"	"								IN	"	A8 to B8	"	"	"
		"	241	"	"	GND	OUT								"	B1 to A1	"	"	"
		"	242	"	"	"		OUT							"	B2 to A2	"	"	"
		"	243	"	"	"			OUT						"	B3 to A3	"	"	"
		"	244	"	"	"				OUT					"	B4 to A4	"	"	"
		"	245	"	"	"					OUT				"	B5 to A5	"	"	"
		"	246	"	"	"						OUT			"	B6 to A6	"	"	"
		"	247	"	"	"							OUT		"	B7 to A7	"	"	"
		"	248	"	"	"								OUT	"	B8 to A8	"	"	"
	t_{PHL2}	"	249	"	"	4.5 V	IN								"	A1 to B1	"	25	"
		"	250	"	"	"		IN							"	A2 to B2	"	"	"
		"	251	"	"	"			IN						"	A3 to B3	"	"	"
		"	252	"	"	"				IN					"	A4 to B4	"	"	"
		"	253	"	"	"					IN				"	A5 to B5	"	"	"
		"	254	"	"	"						IN			"	A6 to B6	"	"	"
		"	255	"	"	"							IN		"	A7 to B7	"	"	"
		"	256	"	"	"								IN	"	A8 to B8	"	"	"
		"	257	"	"	GND	OUT								"	B1 to A1	"	"	"
		"	258	"	"	"		OUT							"	B2 to A2	"	"	"
		"	259	"	"	"			OUT						"	B3 to A3	"	"	"
		"	260	"	"	"				OUT					"	B4 to A4	"	"	"
		"	261	"	"	"					OUT				"	B5 to A5	"	"	"
		"	262	"	"	"						OUT			"	B6 to A6	"	"	"
		"	263	"	"	"							OUT		"	B7 to A7	"	"	"
		"	264	"	"	"								OUT	"	B8 to A8	"	"	"
	t_{PLH3}	"	265	4/	IN	4.5 V	4/								"	SAB to B1	"	45	"
		"	266	"	"	"		4/							"	SAB to B2	"	"	"
		"	267	"	"	"			4/						"	SAB to B3	"	"	"
		"	268	"	"	"				4/					"	SAB to B4	"	"	"
		"	269	"	"	"					4/				"	SAB to B5	"	"	"
		"	270	"	"	"						4/			"	SAB to B6	"	"	"
		"	271	"	"	"							4/		"	SAB to B7	"	"	"
		"	272	"	"	"								4/	"	SAB to B8	"	"	"

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured terminal	Test Limits		Unit
			Test no.	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	SEL BA	CLK BA	V_{CC}		Min	Max	
9	t_{PHL1}	3003	217								OUT	GND	GND	GND	5.0 V	CAB to B1	2	40	ns
Tc = 25°C		(fig. 3)	218							OUT		"	"	"	"	CAB to B2	"	"	"
		"	219						OUT			"	"	"	"	CAB to B3	"	"	"
		"	220					OUT				"	"	"	"	CAB to B4	"	"	"
		"	221				OUT					"	"	"	"	CAB to B5	"	"	"
		"	222			OUT						"	"	"	"	CAB to B6	"	"	"
		"	223		OUT							"	"	"	"	CAB to B7	"	"	"
		"	224	OUT								"	"	"	"	CAB to B8	"	"	"
		"	225								IN	"	4.5 V	IN	"	CBA to A1	"	"	"
		"	226							IN		"	"	"	"	CBA to A2	"	"	"
		"	227						IN			"	"	"	"	CBA to A3	"	"	"
		"	228					IN				"	"	"	"	CBA to A4	"	"	"
		"	229				IN					"	"	"	"	CBA to A5	"	"	"
		"	230			IN						"	"	"	"	CBA to A6	"	"	"
		"	231		IN							"	"	"	"	CBA to A7	"	"	"
		"	232	IN								"	"	"	"	CBA to A8	"	"	"
	t_{PLH2}	"	233								OUT	"	GND	GND	"	A1 to B1	"	23	"
		"	234							OUT		"	"	"	"	A2 to B2	"	"	"
		"	235						OUT			"	"	"	"	A3 to B3	"	"	"
		"	236					OUT				"	"	"	"	A4 to B4	"	"	"
		"	237				OUT					"	"	"	"	A5 to B5	"	"	"
		"	238			OUT						"	"	"	"	A6 to B6	"	"	"
		"	239		OUT							"	"	"	"	A7 to B7	"	"	"
		"	240	OUT								"	"	"	"	A8 to B8	"	"	"
		"	241								IN	"	"	"	"	B1 to A1	"	"	"
		"	242							IN		"	"	"	"	B2 to A2	"	"	"
		"	243						IN			"	"	"	"	B3 to A3	"	"	"
		"	244					IN				"	"	"	"	B4 to A4	"	"	"
		"	245				IN					"	"	"	"	B5 to A5	"	"	"
		"	246			IN						"	"	"	"	B6 to A6	"	"	"
		"	247		IN							"	"	"	"	B7 to A7	"	"	"
		"	248	IN								"	"	"	"	B8 to A8	"	"	"
	t_{PHL2}	"	249								OUT	"	"	"	"	A1 to B1	"	25	"
		"	250							OUT		"	"	"	"	A2 to B2	"	"	"
		"	251						OUT			"	"	"	"	A3 to B3	"	"	"
		"	252					OUT				"	"	"	"	A4 to B4	"	"	"
		"	253				OUT					"	"	"	"	A5 to B5	"	"	"
		"	254			OUT						"	"	"	"	A6 to B6	"	"	"
		"	255		OUT							"	"	"	"	A7 to B7	"	"	"
		"	256	OUT								"	"	"	"	A8 to B8	"	"	"
		"	257								IN	"	"	"	"	B1 to A1	"	"	"
		"	258							IN		"	"	"	"	B2 to A2	"	"	"
		"	259						IN			"	"	"	"	B3 to A3	"	"	"
		"	260					IN				"	"	"	"	B4 to A4	"	"	"
		"	261				IN					"	"	"	"	B5 to A5	"	"	"
		"	262			IN						"	"	"	"	B6 to A6	"	"	"
		"	263		IN							"	"	"	"	B7 to A7	"	"	"
		"	264	IN								"	"	"	"	B8 to A8	"	"	"
	t_{PLH3}	"	265								OUT	"	"	"	"	SAB to B1	"	45	"
		"	266							OUT		"	"	"	"	SAB to B2	"	"	"
		"	267						OUT			"	"	"	"	SAB to B3	"	"	"
		"	268					OUT				"	"	"	"	SAB to B4	"	"	"
		"	269				OUT					"	"	"	"	SAB to B5	"	"	"
		"	270			OUT						"	"	"	"	SAB to B6	"	"	"
		"	271		OUT							"	"	"	"	SAB to B7	"	"	"
		"	272	OUT								"	"	"	"	SAB to B8	"	"	"

See footnotes at end of device type 04.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
9	t_{PLH3}	3003	273	GND	GND	GND	OUT								GND	SBA to A1	2	45	ns
Tc = 25°C		(fig. 3)	274	"	"	"		OUT							"	SBA to A2	"	"	"
		"	275	"	"	"			OUT						"	SBA to A3	"	"	"
		"	276	"	"	"				OUT					"	SBA to A4	"	"	"
		"	277	"	"	"					OUT				"	SBA to A5	"	"	"
		"	278	"	"	"						OUT			"	SBA to A6	"	"	"
		"	279	"	"	"							OUT		"	SBA to A7	"	"	"
		"	280	"	"	"								OUT	"	SBA to A8	"	"	"
	t_{PHL3}	"	281	4/	IN	4.5 V	4/								"	SAB to B1	"	40	"
		"	282	"	"	"		4/							"	SAB to B2	"	"	"
		"	283	"	"	"			4/						"	SAB to B3	"	"	"
		"	284	"	"	"				4/					"	SAB to B4	"	"	"
		"	285	"	"	"					4/				"	SAB to B5	"	"	"
		"	286	"	"	"						4/			"	SAB to B6	"	"	"
		"	287	"	"	"							4/		"	SAB to B7	"	"	"
		"	288	"	"	"								4/	"	SAB to B8	"	"	"
		"	289	GND	GND	GND	OUT								"	SBA to A1	"	"	"
		"	290	"	"	"		OUT							"	SBA to A2	"	"	"
		"	291	"	"	"			OUT						"	SBA to A3	"	"	"
		"	292	"	"	"				OUT					"	SBA to A4	"	"	"
		"	293	"	"	"					OUT				"	SBA to A5	"	"	"
		"	294	"	"	"						OUT			"	SBA to A6	"	"	"
		"	295	"	"	"							OUT		"	SBA to A7	"	"	"
		"	296	"	"	"								OUT	"	SBA to A8	"	"	"
	t_{PLH4}	"	297	5/	IN	4.5 V	5/								"	SAB to B1	"	55	"
		"	298	"	"	"		5/							"	SAB to B2	"	"	"
		"	299	"	"	"			5/						"	SAB to B3	"	"	"
		"	300	"	"	"				5/					"	SAB to B4	"	"	"
		"	301	"	"	"					5/				"	SAB to B5	"	"	"
		"	302	"	"	"						5/			"	SAB to B6	"	"	"
		"	303	"	"	"							5/		"	SAB to B7	"	"	"
		"	304	"	"	"								5/	"	SAB to B8	"	"	"
		"	305	GND	GND	GND	OUT								"	SBA to A1	"	"	"
		"	306	"	"	"		OUT							"	SBA to A2	"	"	"
		"	307	"	"	"			OUT						"	SBA to A3	"	"	"
		"	308	"	"	"				OUT					"	SBA to A4	"	"	"
		"	309	"	"	"					OUT				"	SBA to A5	"	"	"
		"	310	"	"	"						OUT			"	SBA to A6	"	"	"
		"	311	"	"	"							OUT		"	SBA to A7	"	"	"
		"	312	"	"	"								OUT	"	SBA to A8	"	"	"
	t_{PHL4}	"	313	5/	IN	4.5 V	5/								"	SAB to B1	"	30	"
		"	314	"	"	"		5/							"	SAB to B2	"	"	"
		"	315	"	"	"			5/						"	SAB to B3	"	"	"
		"	316	"	"	"				5/					"	SAB to B4	"	"	"
		"	317	"	"	"					5/				"	SAB to B5	"	"	"
		"	318	"	"	"						5/			"	SAB to B6	"	"	"
		"	319	"	"	"							5/		"	SAB to B7	"	"	"
		"	320	"	"	"								5/	"	SAB to B8	"	"	"
		"	321	GND	GND	GND	OUT								"	SBA to A1	"	"	"
		"	322	"	"	"		OUT							"	SBA to A2	"	"	"
		"	323	"	"	"			OUT						"	SBA to A3	"	"	"
		"	324	"	"	"				OUT					"	SBA to A4	"	"	"
		"	325	"	"	"					OUT				"	SBA to A5	"	"	"
		"	326	"	"	"						OUT			"	SBA to A6	"	"	"
		"	327	"	"	"							OUT		"	SBA to A7	"	"	"
		"	328	"	"	"								OUT	"	SBA to A8	"	"	"

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured terminal	Test Limits		Unit
			Test no.	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	SEL BA	CLK BA	V_{CC}		Min	Max	
9	t_{PLH3}	3003	273								4/	GND	IN	4/	5.0 V	SBA to A1	2	45	ns
Tc = 25°C		(fig. 3)	274							4/		"	"	"	"	SBA to A2	"	"	"
		"	275						4/			"	"	"	"	SBA to A3	"	"	"
		"	276					4/				"	"	"	"	SBA to A4	"	"	"
		"	277				4/					"	"	"	"	SBA to A5	"	"	"
		"	278			4/						"	"	"	"	SBA to A6	"	"	"
		"	279		4/							"	"	"	"	SBA to A7	"	"	"
		"	280	4/								"	"	"	"	SBA to A8	"	"	"
	t_{PHL3}	"	281								OUT	"	GND	GND	"	SAB to B1	"	40	"
		"	282							OUT		"	"	"	"	SAB to B2	"	"	"
		"	283						OUT			"	"	"	"	SAB to B3	"	"	"
		"	284					OUT				"	"	"	"	SAB to B4	"	"	"
		"	285				OUT					"	"	"	"	SAB to B5	"	"	"
		"	286			OUT						"	"	"	"	SAB to B6	"	"	"
		"	287		OUT							"	"	"	"	SAB to B7	"	"	"
		"	288	OUT								"	"	"	"	SAB to B8	"	"	"
		"	289								4/	"	IN	4/	"	SBA to A1	"	"	"
		"	290							4/		"	"	"	"	SBA to A2	"	"	"
		"	291						4/			"	"	"	"	SBA to A3	"	"	"
		"	292					4/				"	"	"	"	SBA to A4	"	"	"
		"	293				4/					"	"	"	"	SBA to A5	"	"	"
		"	294			4/						"	"	"	"	SBA to A6	"	"	"
		"	295		4/							"	"	"	"	SBA to A7	"	"	"
		"	296	4/								"	"	"	"	SBA to A8	"	"	"
	t_{PLH4}	"	297								OUT	"	GND	GND	"	SAB to B1	"	55	"
		"	298							OUT		"	"	"	"	SAB to B2	"	"	"
		"	299						OUT			"	"	"	"	SAB to B3	"	"	"
		"	300					OUT				"	"	"	"	SAB to B4	"	"	"
		"	301				OUT					"	"	"	"	SAB to B5	"	"	"
		"	302			OUT						"	"	"	"	SAB to B6	"	"	"
		"	303		OUT							"	"	"	"	SAB to B7	"	"	"
		"	304	OUT								"	"	"	"	SAB to B8	"	"	"
		"	305								5/	"	IN	5/	"	SBA to A1	"	"	"
		"	306							5/		"	"	"	"	SBA to A2	"	"	"
		"	307						5/			"	"	"	"	SBA to A3	"	"	"
		"	308					5/				"	"	"	"	SBA to A4	"	"	"
		"	309				5/					"	"	"	"	SBA to A5	"	"	"
		"	310			5/						"	"	"	"	SBA to A6	"	"	"
		"	311		5/							"	"	"	"	SBA to A7	"	"	"
		"	312	5/								"	"	"	"	SBA to A8	"	"	"
	t_{PHL4}	"	313								OUT	"	GND	GND	"	SAB to B1	"	30	"
		"	314							OUT		"	"	"	"	SAB to B2	"	"	"
		"	315						OUT			"	"	"	"	SAB to B3	"	"	"
		"	316					OUT				"	"	"	"	SAB to B4	"	"	"
		"	317				OUT					"	"	"	"	SAB to B5	"	"	"
		"	318			OUT						"	"	"	"	SAB to B6	"	"	"
		"	319		OUT							"	"	"	"	SAB to B7	"	"	"
		"	320	OUT								"	"	"	"	SAB to B8	"	"	"
		"	321								5/	"	IN	5/	"	SBA to A1	"	"	"
		"	322							5/		"	"	"	"	SBA to A2	"	"	"
		"	323						5/			"	"	"	"	SBA to A3	"	"	"
		"	324					5/				"	"	"	"	SBA to A4	"	"	"
		"	325				5/					"	"	"	"	SBA to A5	"	"	"
		"	326			5/						"	"	"	"	SBA to A6	"	"	"
		"	327		5/							"	"	"	"	SBA to A7	"	"	"
		"	328	5/								"	"	"	"	SBA to A8	"	"	"

See footnotes at end of device type 04.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
9	t_{PZH2}	3003	329		GND	GND	OUT								GND	$\overline{G}$ to A1	2	60	ns
Tc = 25°C		(fig. 3)	330		"	"		OUT							"	$\overline{G}$ to A2	"	"	"
		"	331		"	"			OUT						"	$\overline{G}$ to A3	"	"	"
		"	332		"	"				OUT					"	$\overline{G}$ to A4	"	"	"
		"	333		"	"					OUT				"	$\overline{G}$ to A5	"	"	"
		"	334		"	"						OUT			"	$\overline{G}$ to A6	"	"	"
		"	335		"	"							OUT		"	$\overline{G}$ to A7	"	"	"
		"	336		"	"								OUT	"	$\overline{G}$ to A8	"	"	"
		"	337		"	4.5 V	4.5 V								"	$\overline{G}$ to B1	"	"	"
		"	338		"	"		4.5 V							"	$\overline{G}$ to B2	"	"	"
		"	339		"	"			4.5 V						"	$\overline{G}$ to B3	"	"	"
		"	340		"	"				4.5 V					"	$\overline{G}$ to B4	"	"	"
		"	341		"	"					4.5 V				"	$\overline{G}$ to B5	"	"	"
		"	342		"	"						4.5 V			"	$\overline{G}$ to B6	"	"	"
		"	343		"	"							4.5 V		"	$\overline{G}$ to B7	"	"	"
		"	344		"	"								4.5 V	"	$\overline{G}$ to B8	"	"	"
	t_{PZL2}	"	345		"	GND	OUT								"	$\overline{G}$ to A1	"	70	"
		"	346		"	"		OUT							"	$\overline{G}$ to A2	"	"	"
		"	347		"	"			OUT						"	$\overline{G}$ to A3	"	"	"
		"	348		"	"				OUT					"	$\overline{G}$ to A4	"	"	"
		"	349		"	"					OUT				"	$\overline{G}$ to A5	"	"	"
		"	350		"	"						OUT			"	$\overline{G}$ to A6	"	"	"
		"	351		"	"							OUT		"	$\overline{G}$ to A7	"	"	"
		"	352		"	"								OUT	"	$\overline{G}$ to A8	"	"	"
		"	353		"	4.5 V	GND								"	$\overline{G}$ to B1	"	"	"
		"	354		"	"		GND							"	$\overline{G}$ to B2	"	"	"
		"	355		"	"			GND						"	$\overline{G}$ to B3	"	"	"
		"	356		"	"				GND					"	$\overline{G}$ to B4	"	"	"
		"	357		"	"					GND				"	$\overline{G}$ to B5	"	"	"
		"	358		"	"						GND			"	$\overline{G}$ to B6	"	"	"
		"	359		"	"							GND		"	$\overline{G}$ to B7	"	"	"
		"	360		"	"								GND	"	$\overline{G}$ to B8	"	"	"

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L Test no.	13 B8	14 B7	15 B6	16 B5	17 B4	18 B3	19 B2	20 B1	21 $\overline{G}$	22 SEL BA	23 CLK BA	24 V_{CC}	Measured terminal	Test Limits Min	Test Limits Max	Unit
9	t_{PZH2}	3003	329								4.5 V	IN	GND		5.0 V	$\overline{G}$ to A1	2	60	ns
Tc = 25°C		(fig. 3)	330							4.5 V		"	"		"	$\overline{G}$ to A2	"	"	"
		"	331						4.5 V			"	"		"	$\overline{G}$ to A3	"	"	"
		"	332					4.5 V				"	"		"	$\overline{G}$ to A4	"	"	"
		"	333				4.5 V					"	"		"	$\overline{G}$ to A5	"	"	"
		"	334			4.5 V						"	"		"	$\overline{G}$ to A6	"	"	"
		"	335		4.5 V							"	"		"	$\overline{G}$ to A7	"	"	"
		"	336	4.5 V								"	"		"	$\overline{G}$ to A8	"	"	"
		"	337								OUT	"	"		"	$\overline{G}$ to B1	"	"	"
		"	338							OUT		"	"		"	$\overline{G}$ to B2	"	"	"
		"	339						OUT			"	"		"	$\overline{G}$ to B3	"	"	"
		"	340					OUT				"	"		"	$\overline{G}$ to B4	"	"	"
		"	341				OUT					"	"		"	$\overline{G}$ to B5	"	"	"
		"	342			OUT						"	"		"	$\overline{G}$ to B6	"	"	"
		"	343		OUT							"	"		"	$\overline{G}$ to B7	"	"	"
		"	344	OUT								"	"		"	$\overline{G}$ to B8	"	"	"
	t_{PZL2}	"	345								GND	"	"		"	$\overline{G}$ to A1	"	70	"
		"	346							GND		"	"		"	$\overline{G}$ to A2	"	"	"
		"	347						GND			"	"		"	$\overline{G}$ to A3	"	"	"
		"	348					GND				"	"		"	$\overline{G}$ to A4	"	"	"
		"	349				GND					"	"		"	$\overline{G}$ to A5	"	"	"
		"	350			GND						"	"		"	$\overline{G}$ to A6	"	"	"
		"	351		GND							"	"		"	$\overline{G}$ to A7	"	"	"
		"	352	GND								"	"		"	$\overline{G}$ to A8	"	"	"
		"	353								OUT	"	"		"	$\overline{G}$ to B1	"	"	"
		"	354							OUT		"	"		"	$\overline{G}$ to B2	"	"	"
		"	355						OUT			"	"		"	$\overline{G}$ to B3	"	"	"
		"	356					OUT				"	"		"	$\overline{G}$ to B4	"	"	"
		"	357				OUT					"	"		"	$\overline{G}$ to B5	"	"	"
		"	358			OUT						"	"		"	$\overline{G}$ to B6	"	"	"
		"	359		OUT							"	"		"	$\overline{G}$ to B7	"	"	"
		"	360	OUT								"	"		"	$\overline{G}$ to B8	"	"	"

See footnotes at end of device type 04.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
9	t_{PZH3}	3003	361		GND	IN	4.5 V								GND	DIR to B1	2	50	ns
Tc = 25°C		(fig. 3)	362		"	"		4.5 V							"	DIR to B2	"	"	"
		"	363		"	"			4.5 V						"	DIR to B3	"	"	"
		"	364		"	"				4.5 V					"	DIR to B4	"	"	"
		"	365		"	"					4.5 V				"	DIR to B5	"	"	"
		"	366		"	"						4.5 V			"	DIR to B6	"	"	"
		"	367		"	"							4.5 V		"	DIR to B7	"	"	"
		"	368		"	"								4.5 V	"	DIR to B8	"	"	"
		"	369		"	"	OUT								"	DIR to A1	"	"	"
		"	370		"	"		OUT							"	DIR to A2	"	"	"
		"	371		"	"			OUT						"	DIR to A3	"	"	"
		"	372		"	"				OUT					"	DIR to A4	"	"	"
		"	373		"	"					OUT				"	DIR to A5	"	"	"
		"	374		"	"						OUT			"	DIR to A6	"	"	"
		"	375		"	"							OUT		"	DIR to A7	"	"	"
		"	376		"	"								OUT	"	DIR to A8	"	"	"
	t_{PZL3}	"	377		"	"	GND								"	DIR to B1	"	65	"
		"	378		"	"		GND							"	DIR to B2	"	"	"
		"	379		"	"			GND						"	DIR to B3	"	"	"
		"	380		"	"				GND					"	DIR to B4	"	"	"
		"	381		"	"					GND				"	DIR to B5	"	"	"
		"	382		"	"						GND			"	DIR to B6	"	"	"
		"	383		"	"							GND		"	DIR to B7	"	"	"
		"	384		"	"								GND	"	DIR to B8	"	"	"
		"	385		"	"	OUT								"	DIR to A1	"	"	"
		"	386		"	"		OUT							"	DIR to A2	"	"	"
		"	387		"	"			OUT						"	DIR to A3	"	"	"
		"	388		"	"				OUT					"	DIR to A4	"	"	"
		"	389		"	"					OUT				"	DIR to A5	"	"	"
		"	390		"	"						OUT			"	DIR to A6	"	"	"
		"	391		"	"							OUT		"	DIR to A7	"	"	"
		"	392		"	"								OUT	"	DIR to A8	"	"	"
	t_{PHZ2}	"	393		GND	4.5 V	4.5 V								"	$\overline{G}$ to B1	"	40	"
		"	394		"	"		4.5 V							"	$\overline{G}$ to B2	"	"	"
		"	395		"	"			4.5 V						"	$\overline{G}$ to B3	"	"	"
		"	396		"	"				4.5 V					"	$\overline{G}$ to B4	"	"	"
		"	397		"	"					4.5 V				"	$\overline{G}$ to B5	"	"	"
		"	398		"	"						4.5 V			"	$\overline{G}$ to B6	"	"	"
		"	399		"	"							4.5 V		"	$\overline{G}$ to B7	"	"	"
		"	400		"	"								4.5 V	"	$\overline{G}$ to B8	"	"	"
		"	401		"	GND	OUT								"	$\overline{G}$ to A1	"	"	"
		"	402		"	"		OUT							"	$\overline{G}$ to A2	"	"	"
		"	403		"	"			OUT						"	$\overline{G}$ to A3	"	"	"
		"	404		"	"				OUT					"	$\overline{G}$ to A4	"	"	"
		"	405		"	"					OUT				"	$\overline{G}$ to A5	"	"	"
		"	406		"	"						OUT			"	$\overline{G}$ to A6	"	"	"
		"	407		"	"							OUT		"	$\overline{G}$ to A7	"	"	"
		"	408		"	"								OUT	"	$\overline{G}$ to A8	"	"	"

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L Test no.	13 B8	14 B7	15 B6	16 B5	17 B4	18 B3	19 B2	20 B1	21 $\overline{G}$	22 SEL BA	23 CLK BA	24 V_{CC}	Measured terminal	Test Limits Min	Test Limits Max	Unit
9 Tc = 25°C	t_{PZH3}	3003 (fig. 3)	361								OUT	GND	GND		5.0 V	DIR to B1	2	50	ns
		"	362							OUT		"	"		"	DIR to B2	"	"	"
		"	363						OUT			"	"		"	DIR to B3	"	"	"
		"	364					OUT				"	"		"	DIR to B4	"	"	"
		"	365				OUT					"	"		"	DIR to B5	"	"	"
		"	366			OUT						"	"		"	DIR to B6	"	"	"
		"	367		OUT							"	"		"	DIR to B7	"	"	"
		"	368	OUT								"	"		"	DIR to B8	"	"	"
		"	369								4.5 V	"	"		"	DIR to A1	"	"	"
		"	370							4.5 V		"	"		"	DIR to A2	"	"	"
		"	371						4.5 V			"	"		"	DIR to A3	"	"	"
		"	372					4.5 V				"	"		"	DIR to A4	"	"	"
		"	373				4.5 V					"	"		"	DIR to A5	"	"	"
		"	374			4.5 V						"	"		"	DIR to A6	"	"	"
		"	375		4.5 V							"	"		"	DIR to A7	"	"	"
		"	376	4.5 V								"	"		"	DIR to A8	"	"	"
	t_{PZL3}	"	377								OUT	"	"		"	DIR to B1	"	65	"
		"	378							OUT		"	"		"	DIR to B2	"	"	"
		"	379						OUT			"	"		"	DIR to B3	"	"	"
		"	380					OUT				"	"		"	DIR to B4	"	"	"
		"	381				OUT					"	"		"	DIR to B5	"	"	"
		"	382			OUT						"	"		"	DIR to B6	"	"	"
		"	383		OUT							"	"		"	DIR to B7	"	"	"
		"	384	OUT								"	"		"	DIR to B8	"	"	"
		"	385								GND	"	"		"	DIR to A1	"	"	"
		"	386							GND		"	"		"	DIR to A2	"	"	"
		"	387						GND			"	"		"	DIR to A3	"	"	"
		"	388					GND				"	"		"	DIR to A4	"	"	"
		"	389				GND					"	"		"	DIR to A5	"	"	"
		"	390			GND						"	"		"	DIR to A6	"	"	"
		"	391		GND							"	"		"	DIR to A7	"	"	"
		"	392	GND								"	"		"	DIR to A8	"	"	"
	t_{PHZ2}	"	393								OUT	IN	"		"	$\overline{G}$ to B1	"	40	"
		"	394							OUT		"	"		"	$\overline{G}$ to B2	"	"	"
		"	395						OUT			"	"		"	$\overline{G}$ to B3	"	"	"
		"	396					OUT				"	"		"	$\overline{G}$ to B4	"	"	"
		"	397				OUT					"	"		"	$\overline{G}$ to B5	"	"	"
		"	398			OUT						"	"		"	$\overline{G}$ to B6	"	"	"
		"	399		OUT							"	"		"	$\overline{G}$ to B7	"	"	"
		"	400	OUT								"	"		"	$\overline{G}$ to B8	"	"	"
		"	401								4.5 V	"	"		"	$\overline{G}$ to A1	"	"	"
		"	402							4.5 V		"	"		"	$\overline{G}$ to A2	"	"	"
		"	403						4.5 V			"	"		"	$\overline{G}$ to A3	"	"	"
		"	404					4.5 V				"	"		"	$\overline{G}$ to A4	"	"	"
		"	405				4.5 V					"	"		"	$\overline{G}$ to A5	"	"	"
		"	406			4.5 V						"	"		"	$\overline{G}$ to A6	"	"	"
		"	407		4.5 V							"	"		"	$\overline{G}$ to A7	"	"	"
		"	408	4.5 V								"	"		"	$\overline{G}$ to A8	"	"	"

See footnotes at end of device type 04.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
9	t_{PLZ2}	3003	409		GND	4.5 V	GND								GND	$\overline{G}$ to B1	2	40	ns
Tc = 25°C		(fig. 3)	410		"	"		GND							"	$\overline{G}$ to B2	"	"	"
		"	411		"	"			GND						"	$\overline{G}$ to B3	"	"	"
		"	412		"	"				GND					"	$\overline{G}$ to B4	"	"	"
		"	413		"	"					GND				"	$\overline{G}$ to B5	"	"	"
		"	414		"	"						GND			"	$\overline{G}$ to B6	"	"	"
		"	415		"	"							GND		"	$\overline{G}$ to B7	"	"	"
		"	416		"	"								GND	"	$\overline{G}$ to B8	"	"	"
		"	417		"	GND	OUT								"	$\overline{G}$ to A1	"	"	"
		"	418		"	"		OUT							"	$\overline{G}$ to A2	"	"	"
		"	419		"	"			OUT						"	$\overline{G}$ to A3	"	"	"
		"	420		"	"				OUT					"	$\overline{G}$ to A4	"	"	"
		"	421		"	"					OUT				"	$\overline{G}$ to A5	"	"	"
		"	422		"	"						OUT			"	$\overline{G}$ to A6	"	"	"
		"	423		"	"							OUT		"	$\overline{G}$ to A7	"	"	"
		"	424		"	"								OUT	"	$\overline{G}$ to A8	"	"	"
	t_{PHZ3}	"	425		GND	IN	4.5 V								"	DIR to B1	"	35	"
		"	426		"	"		4.5 V							"	DIR to B2	"	"	"
		"	427		"	"			4.5 V						"	DIR to B3	"	"	"
		"	428		"	"				4.5 V					"	DIR to B4	"	"	"
		"	429		"	"					4.5 V				"	DIR to B5	"	"	"
		"	430		"	"						4.5 V			"	DIR to B6	"	"	"
		"	431		"	"							4.5 V		"	DIR to B7	"	"	"
		"	432		"	"								4.5 V	"	DIR to B8	"	"	"
		"	433		"	"	OUT								"	DIR to A1	"	"	"
		"	434		"	"		OUT							"	DIR to A2	"	"	"
		"	435		"	"			OUT						"	DIR to A3	"	"	"
		"	436		"	"				OUT					"	DIR to A4	"	"	"
		"	437		"	"					OUT				"	DIR to A5	"	"	"
		"	438		"	"						OUT			"	DIR to A6	"	"	"
		"	439		"	"							OUT		"	DIR to A7	"	"	"
		"	440		"	"								OUT	"	DIR to A8	"	"	"
	t_{PLZ3}	"	441		"	"	GND								"	DIR to B1	"	"	"
		"	442		"	"		GND							"	DIR to B2	"	"	"
		"	443		"	"			GND						"	DIR to B3	"	"	"
		"	444		"	"				GND					"	DIR to B4	"	"	"
		"	445		"	"					GND				"	DIR to B5	"	"	"
		"	446		"	"						GND			"	DIR to B6	"	"	"
		"	447		"	"							GND		"	DIR to B7	"	"	"
		"	448		"	"								GND	"	DIR to B8	"	"	"
		"	449		"	"	OUT								"	DIR to A1	"	"	"
		"	450		"	"		OUT							"	DIR to A2	"	"	"
		"	451		"	"			OUT						"	DIR to A3	"	"	"
		"	452		"	"				OUT					"	DIR to A4	"	"	"
		"	453		"	"					OUT				"	DIR to A5	"	"	"
		"	454		"	"						OUT			"	DIR to A6	"	"	"
		"	455		"	"							OUT		"	DIR to A7	"	"	"
		"	456		"	"								OUT	"	DIR to A8	"	"	"

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L Test no.	13 B8	14 B7	15 B6	16 B5	17 B4	18 B3	19 B2	20 B1	21 $\overline{G}$	22 SEL BA	23 CLK BA	24 V_{CC}	Measured terminal	Test Limits Min	Test Limits Max	Unit
9	t_{PL22}	3003	409								OUT	IN	GND		5.0 V	$\overline{G}$ to B1	2	40	ns
Tc = 25°C		(fig. 3)	410							OUT		"	"		"	$\overline{G}$ to B2	"	"	"
		"	411						OUT			"	"		"	$\overline{G}$ to B3	"	"	"
		"	412					OUT				"	"		"	$\overline{G}$ to B4	"	"	"
		"	413				OUT					"	"		"	$\overline{G}$ to B5	"	"	"
		"	414			OUT						"	"		"	$\overline{G}$ to B6	"	"	"
		"	415		OUT							"	"		"	$\overline{G}$ to B7	"	"	"
		"	416	OUT								"	"		"	$\overline{G}$ to B8	"	"	"
		"	417								GND	"	"		"	$\overline{G}$ to A1	"	"	"
		"	418							GND		"	"		"	$\overline{G}$ to A2	"	"	"
		"	419						GND			"	"		"	$\overline{G}$ to A3	"	"	"
		"	420					GND				"	"		"	$\overline{G}$ to A4	"	"	"
		"	421				GND					"	"		"	$\overline{G}$ to A5	"	"	"
		"	422			GND						"	"		"	$\overline{G}$ to A6	"	"	"
		"	423		GND							"	"		"	$\overline{G}$ to A7	"	"	"
		"	424	GND								"	"		"	$\overline{G}$ to A8	"	"	"
	t_{PHZ3}	"	425								OUT	GND	"		5.0 V	DIR to B1	"	35	"
		"	426							OUT		"	"		"	DIR to B2	"	"	"
		"	427						OUT			"	"		"	DIR to B3	"	"	"
		"	428					OUT				"	"		"	DIR to B4	"	"	"
		"	429				OUT					"	"		"	DIR to B5	"	"	"
		"	430			OUT						"	"		"	DIR to B6	"	"	"
		"	431		OUT							"	"		"	DIR to B7	"	"	"
		"	432	OUT								"	"		"	DIR to B8	"	"	"
		"	433								4.5 V	"	"		"	DIR to A1	"	"	"
		"	434							4.5 V		"	"		"	DIR to A2	"	"	"
		"	435						4.5 V			"	"		"	DIR to A3	"	"	"
		"	436					4.5 V				"	"		"	DIR to A4	"	"	"
		"	437				4.5 V					"	"		"	DIR to A5	"	"	"
		"	438			4.5 V						"	"		"	DIR to A6	"	"	"
		"	439		4.5 V							"	"		"	DIR to A7	"	"	"
		"	440	4.5 V								"	"		"	DIR to A8	"	"	"
	t_{PLZ3}	"	441								OUT	"	"		"	DIR to B1	"	"	"
		"	442							OUT		"	"		"	DIR to B2	"	"	"
		"	443						OUT			"	"		"	DIR to B3	"	"	"
		"	444					OUT				"	"		"	DIR to B4	"	"	"
		"	445				OUT					"	"		"	DIR to B5	"	"	"
		"	446			OUT						"	"		"	DIR to B6	"	"	"
		"	447		OUT							"	"		"	DIR to B7	"	"	"
		"	448	OUT								"	"		"	DIR to B8	"	"	"
		"	449								GND	"	"		"	DIR to A1	"	"	"
		"	450							GND		"	"		"	DIR to A2	"	"	"
		"	451						GND			"	"		"	DIR to A3	"	"	"
		"	452					GND				"	"		"	DIR to A4	"	"	"
		"	453				GND					"	"		"	DIR to A5	"	"	"
		"	454			GND						"	"		"	DIR to A6	"	"	"
		"	455		GND							"	"		"	DIR to A7	"	"	"
		"	456	GND								"	"		"	DIR to A8	"	"	"

See footnotes at end of device type 04. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L Test no.	1 CLK AB	2 SEL AB	3 DIR	4 A1	5 A2	6 A3	7 A4	8 A5	9 A6	10 A7	11 A8	12 GND	Measured terminal	Test Limits Min	Test Limits Max	Unit
10 T_C = 125°C	t_{PLH1}	Same tests and terminal conditions as subgroup 9, except T_C = +125°C.															2	39	ns
	t_{PHL1}																"	52	"
	t_{PLH2}																"	30	"
	t_{PHL2}																"	33	"
	t_{PLH3}																"	59	"
	t_{PHL3}																"	52	"
	t_{PLH4}																"	72	"
	t_{PHL4}																"	39	"
	t_{PZH2}																"	78	"
	t_{PZL2}																"	91	"
	t_{PZH3}																"	65	"
	t_{PZL3}																"	85	"
	t_{PHZ2}																"	52	"
	t_{PLZ2}																"	52	"
	t_{PHZ3}																"	46	"
	t_{PLZ3}																"	46	"
11 T_C = -55°C	Same tests, terminal conditions, and limits as subgroup 10, except T_C = -55°C.																		

TABLE III. Group A inspection for device type 04.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L Test no.	13 B8	14 B7	15 B6	16 B5	17 B4	18 B3	19 B2	20 B1	21 $\overline{G}$	22 SEL BA	23 CLK BA	24 V_{CC}	Measured terminal	Test Limits Min	Test Limits Max	Unit
10 T_C = 125°C	t_{PLH1}	Same tests and terminal conditions as subgroup 9, except T_C = +125°C.															2	39	ns
	t_{PHL1}																"	52	"
	t_{PLH2}																"	30	"
	t_{PHL2}																"	33	"
	t_{PLH3}																"	59	"
	t_{PHL3}																"	52	"
	t_{PLH4}																"	72	"
	t_{PHL4}																"	39	"
	t_{PZH2}																"	78	"
	t_{PZL2}																"	91	"
	t_{PZH3}																"	65	"
	t_{PZL3}																"	85	"
	t_{PHZ2}																"	52	"
	t_{PLZ2}																"	52	"
	t_{PHZ3}																"	46	"
	t_{PLZ3}																"	46	"
11 T_C = -55°C	Same tests, terminal conditions, and limits as subgroup 10, except T_C = -55°C.																		

1/ Tests shall be performed in sequence, attributes data only.

2/ H > 1.5 V; L < 1.5 V.

3/ A = 3.0 V minimum; B = 0.0 V or GND.

4/ Prior to test, bus registers are loaded high by placing 4.5 V on bus data and applying one clock pulse ( 2.5 V/5.5 V); 0 V the bus is then placed at GND for the duration of the test.

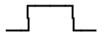
5/ Prior to test, bus registers are loaded low by placing GND on bus data and applying one clock pulse ( 2.5 V/5.5 V); 0 V the bus is then placed at 4.5 V for the duration of the test.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
1	V_{OH1}	3006	1	0.5 V	0.5 V	2.0 V	0.5 V								GND	B1	2.4		V
Tc = 25°C		"	2	"	"	"		0.5 V							"	B2	"		"
		"	3	"	"	"			0.5 V						"	B3	"		"
		"	4	"	"	"				0.5 V					"	B4	"		"
		"	5	"	"	"					0.5 V				"	B5	"		"
		"	6	"	"	"						0.5 V			"	B6	"		"
		"	7	"	"	"							0.5 V		"	B7	"		"
		"	8	"	"	"								0.5 V	"	B8	"		"
		"	9	"	"	0.5 V	-3 mA								"	A1	"		"
		"	10	"	"	"		-3 mA							"	A2	"		"
		"	11	"	"	"			-3 mA						"	A3	"		"
		"	12	"	"	"				-3 mA					"	A4	"		"
		"	13	"	"	"					-3 mA				"	A5	"		"
		"	14	"	"	"						-3 mA			"	A6	"		"
		"	15	"	"	"							-3 mA		"	A7	"		"
		"	16	"	"	"								-3 mA	"	A8	"		"
	V_{OH2}	"	17	"	"	2.0 V	0.5 V								"	B1	2.0		"
		"	18	"	"	"		0.5 V							"	B2	"		"
		"	19	"	"	"			0.5 V						"	B3	"		"
		"	20	"	"	"				0.5 V					"	B4	"		"
		"	21	"	"	"					0.5 V				"	B5	"		"
		"	22	"	"	"						0.5 V			"	B6	"		"
		"	23	"	"	"							0.5 V		"	B7	"		"
		"	24	"	"	"								0.5 V	"	B8	"		"
		"	25	"	"	0.5 V	-12 mA								"	A1	"		"
		"	26	"	"	"		-12 mA							"	A2	"		"
		"	27	"	"	"			-12 mA						"	A3	"		"
		"	28	"	"	"				-12 mA					"	A4	"		"
		"	29	"	"	"					-12 mA				"	A5	"		"
		"	30	"	"	"						-12 mA			"	A6	"		"
		"	31	"	"	"							-12 mA		"	A7	"		"
		"	32	"	"	"								-12 mA	"	A8	"		"
	V_{OL}	"	33	"	"	2.0 V	2.0 V								"	B1		0.4	"
		"	34	"	"	"		2.0 V							"	B2		"	"
		"	35	"	"	"			2.0 V						"	B3		"	"
		"	36	"	"	"				2.0 V					"	B4		"	"
		"	37	"	"	"					2.0 V				"	B5		"	"
		"	38	"	"	"						2.0 V			"	B6		"	"
		"	39	"	"	"							2.0 V		"	B7		"	"
		"	40	"	"	"								2.0 V	"	B8		"	"
		"	41	"	"	0.5 V	12 mA								"	A1		"	"
		"	42	"	"	"		12 mA							"	A2		"	"
		"	43	"	"	"			12 mA						"	A3		"	"
		"	44	"	"	"				12 mA					"	A4		"	"
		"	45	"	"	"					12 mA				"	A5		"	"
		"	46	"	"	"						12 mA			"	A6		"	"
		"	47	"	"	"							12 mA		"	A7		"	"
		"	48	"	"	"								12 mA	"	A8		"	"
	V_{IC}	"	49	-18 mA											"	CAB		-1.5	"
		"	50		-18 mA										"	SAB		"	"
		"	51			-18 mA									"	DIR		"	"
		"	52				-18 mA								"	A1		"	"
		"	53					-18 mA							"	A2		"	"
		"	54						-18 mA						"	A3		"	"
		"	55							-18 mA					"	A4		"	"
		"	56								-18 mA				"	A5		"	"
		"	57									-18 mA			"	A6		"	"
		"	58										-18 mA		"	A7		"	"
		"	59											-18 mA	"	A8		"	"

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L Test no.	13 B8	14 B7	15 B6	16 B5	17 B4	18 B3	19 B2	20 B1	21 $\overline{G}$	22 SEL BA	23 CLK BA	24 V_{CC}	Measured terminal	Test Limits Min	Test Limits Max	Unit
1 Tc = 25°C	V_{OH1}	3006	1								-3 mA	0.5 V	0.5 V	0.5 V	4.5 V	B1	2.4		V
		"	2							-3 mA		"	"	"	"	B2	"		"
		"	3						-3 mA			"	"	"	"	B3	"		"
		"	4					-3 mA				"	"	"	"	B4	"		"
		"	5				-3 mA					"	"	"	"	B5	"		"
		"	6			-3 mA						"	"	"	"	B6	"		"
		"	7		-3 mA							"	"	"	"	B7	"		"
		"	8	-3 mA								"	"	"	"	B8	"		"
		"	9								0.5 V	"	"	"	"	A1	"		"
		"	10							0.5 V		"	"	"	"	A2	"		"
		"	11						0.5 V			"	"	"	"	A3	"		"
		"	12					0.5 V				"	"	"	"	A4	"		"
		"	13				0.5 V					"	"	"	"	A5	"		"
		"	14			0.5 V						"	"	"	"	A6	"		"
		"	15		0.5 V							"	"	"	"	A7	"		"
		"	16	0.5 V								"	"	"	"	A8	"		"
	V_{OH2}	"	17								-12 mA	"	"	"	"	B1	2.0		"
		"	18							-12 mA		"	"	"	"	B2	"		"
		"	19						-12 mA			"	"	"	"	B3	"		"
		"	20					-12 mA				"	"	"	"	B4	"		"
		"	21				-12 mA					"	"	"	"	B5	"		"
		"	22			-12 mA						"	"	"	"	B6	"		"
		"	23		-12 mA							"	"	"	"	B7	"		"
		"	24	-12 mA								"	"	"	"	B8	"		"
		"	25								0.5 V	"	"	"	"	A1	"		"
		"	26							0.5 V		"	"	"	"	A2	"		"
		"	27						0.5 V			"	"	"	"	A3	"		"
		"	28					0.5 V				"	"	"	"	A4	"		"
		"	29				0.5 V					"	"	"	"	A5	"		"
		"	30			0.5 V						"	"	"	"	A6	"		"
		"	31		0.5 V							"	"	"	"	A7	"		"
		"	32	0.5 V								"	"	"	"	A8	"		"
	V_{OL}	"	33								12 mA	"	"	"	"	B1		0.4	"
		"	34							12 mA		"	"	"	"	B2		"	"
		"	35						12 mA			"	"	"	"	B3		"	"
		"	36					12 mA				"	"	"	"	B4		"	"
		"	37				12 mA					"	"	"	"	B5		"	"
		"	38			12 mA						"	"	"	"	B6		"	"
		"	39		12 mA							"	"	"	"	B7		"	"
		"	40	12 mA								"	"	"	"	B8		"	"
		"	41								2.0 V	"	"	"	"	A1		"	"
		"	42							2.0 V		"	"	"	"	A2		"	"
		"	43						2.0 V			"	"	"	"	A3		"	"
		"	44					2.0 V				"	"	"	"	A4		"	"
		"	45				2.0 V					"	"	"	"	A5		"	"
		"	46			2.0 V						"	"	"	"	A6		"	"
		"	47		2.0 V							"	"	"	"	A7		"	"
		"	48	2.0 V								"	"	"	"	A8		"	"
	V_{IC}	"	49												"	CAB		-1.5	"
		"	50												"	SAB		"	"
		"	51												"	DIR		"	"
		"	52												"	A1		"	"
		"	53												"	A2		"	"
		"	54												"	A3		"	"
		"	55												"	A4		"	"
		"	56												"	A5		"	"
		"	57												"	A6		"	"
		"	58												"	A7		"	"
		"	59												"	A8		"	"

See footnotes at end of device type 05.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
1 Tc = 25°C	V_{IC}		60												GND	B8		-1.5	V
			61												"	B7		"	"
			62												"	B6		"	"
			63												"	B5		"	"
			64												"	B4		"	"
			65												"	B3		"	"
			66												"	B2		"	"
			67												"	B1		"	"
			68												"	$\overline{G}$		"	"
			69												"	SBA		"	"
			70												"	CBA		"	"
	I_{IL}	3009	71	0.4 V											"	CAB	0	-200	µA
		"	72		0.4 V										"	SAB	"	"	"
		"	73			0.4 V									"	DIR	"	"	"
		"	74				0.4 V								"	A1	"	"	"
		"	75					0.4 V							"	A2	"	"	"
		"	76						0.4 V						"	A3	"	"	"
		"	77							0.4 V					"	A4	"	"	"
		"	78								0.4 V				"	A5	"	"	"
		"	79									0.4 V			"	A6	"	"	"
		"	80										0.4 V		"	A7	"	"	"
		"	81											0.4 V	"	A8	"	"	"
		"	82												"	B8	"	"	"
		"	83												"	B7	"	"	"
		"	84												"	B6	"	"	"
		"	85												"	B5	"	"	"
		"	86												"	B4	"	"	"
		"	87												"	B3	"	"	"
		"	88												"	B2	"	"	"
		"	89												"	B1	"	"	"
		"	90												"	$\overline{G}$	"	"	"
		"	91												"	SBA	"	"	"
		"	92												"	CBA	"	"	"
	I_{IH1}	3010	93	2.7 V											"	CAB		20	"
		"	94		2.7 V										"	SAB		"	"
		"	95			2.7 V									"	DIR		"	"
		"	96				2.7 V								"	A1		"	"
		"	97					2.7 V							"	A2		"	"
		"	98						2.7 V						"	A3		"	"
		"	99							2.7 V					"	A4		"	"
		"	100								2.7 V				"	A5		"	"
		"	101									2.7 V			"	A6		"	"
		"	102										2.7 V		"	A7		"	"
		"	103											2.7 V	"	A8		"	"
		"	104												"	B8		"	"
		"	105												"	B7		"	"
		"	106												"	B6		"	"
		"	107												"	B5		"	"
		"	108												"	B4		"	"
		"	109												"	B3		"	"
		"	110												"	B2		"	"
		"	111												"	B1		"	"
		"	112												"	$\overline{G}$		"	"
		"	113												"	SBA		"	"
		"	114												"	CBA		"	"

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured terminal	Test Limits		Unit
			Test no.	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	SEL BA	CLK BA	V_{CC}		Min	Max	
1 Tc = 25°C	V_{IC}		60	-18 mA											GND	B8		-1.5	V
			61		-18 mA										"	B7		"	"
			62			-18 mA									"	B6		"	"
			63				-18 mA								"	B5		"	"
			64					-18 mA							"	B4		"	"
			65						-18 mA						"	B3		"	"
			66							-18 mA					"	B2		"	"
			67								-18 mA				"	B1		"	"
			68									-18 mA			"	$\overline{G}$		"	"
			69										-18 mA		"	SBA		"	"
			70											-18 mA	"	CBA		"	"
	I_{IL}	3009	71												"	CAB	0	-200	µA
		"	72												"	SAB	"	"	"
		"	73												"	DIR	"	"	"
		"	74												"	A1	"	"	"
		"	75												"	A2	"	"	"
		"	76												"	A3	"	"	"
		"	77												"	A4	"	"	"
		"	78												"	A5	"	"	"
		"	79												"	A6	"	"	"
		"	80												"	A7	"	"	"
		"	81												"	A8	"	"	"
		"	82	0.4 V											"	B8	"	"	"
		"	83		0.4 V										"	B7	"	"	"
		"	84			0.4 V									"	B6	"	"	"
		"	85				0.4 V								"	B5	"	"	"
		"	86					0.4 V							"	B4	"	"	"
		"	87						0.4 V						"	B3	"	"	"
		"	88							0.4 V					"	B2	"	"	"
		"	89								0.4 V				"	B1	"	"	"
		"	90									0.4 V			"	$\overline{G}$	"	"	"
		"	91										0.4 V		"	SBA	"	"	"
		"	92											0.4 V	"	CBA	"	"	"
	I_{IH1}	3010	93												"	CAB		20	"
		"	94												"	SAB		"	"
		"	95												"	DIR		"	"
		"	96												"	A1		"	"
		"	97												"	A2		"	"
		"	98												"	A3		"	"
		"	99												"	A4		"	"
		"	100												"	A5		"	"
		"	101												"	A6		"	"
		"	102												"	A7		"	"
		"	103												"	A8		"	"
		"	104	2.7 V											"	B8		"	"
		"	105		2.7 V										"	B7		"	"
		"	106			2.7 V									"	B6		"	"
		"	107				2.7 V								"	B5		"	"
		"	108					2.7 V							"	B4		"	"
		"	109						2.7 V						"	B3		"	"
		"	110							2.7 V					"	B2		"	"
		"	111								2.7 V				"	B1		"	"
		"	112									2.7 V			"	$\overline{G}$		"	"
		"	113										2.7 V		"	SBA		"	"
		"	114											2.7 V	"	CBA		"	"

See footnotes at end of device type 05.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
1	I_{IH2}	3010	115	5.5 V											GND	CAB		100	µA
Tc = 25°C		"	116		5.5 V										"	SAB		"	"
		"	117			5.5 V									"	DIR		"	"
		"	118				5.5 V								"	A1		"	"
		"	119					5.5 V							"	A2		"	"
		"	120						5.5 V						"	A3		"	"
		"	121							5.5 V					"	A4		"	"
		"	122								5.5 V				"	A5		"	"
		"	123									5.5 V			"	A6		"	"
		"	124										5.5 V		"	A7		"	"
		"	125											5.5 V	"	A8		"	"
		"	126												"	B8		"	"
		"	127												"	B7		"	"
		"	128												"	B6		"	"
		"	129												"	B5		"	"
		"	130												"	B4		"	"
		"	131												"	B3		"	"
		"	132												"	B2		"	"
		"	133												"	B1		"	"
		"	134												"	$\overline{G}$		"	"
		"	135												"	SBA		"	"
		"	136												"	CBA		"	"
	I_{OZL}		137				0.4 V								"	A1		-400	"
			138					0.4 V							"	A2		"	"
			139						0.4 V						"	A3		"	"
			140							0.4 V					"	A4		"	"
			141								0.4 V				"	A5		"	"
			142									0.4 V			"	A6		"	"
			143										0.4 V		"	A7		"	"
			144											0.4 V	"	A8		"	"
			145												"	B8		"	"
			146												"	B7		"	"
			147												"	B6		"	"
			148												"	B5		"	"
			149												"	B4		"	"
			150												"	B3		"	"
			151												"	B2		"	"
			152												"	B1		"	"
	I_{OZH}		153				2.7 V								"	A1		20	"
			154					2.7 V							"	A2		"	"
			155						2.7 V						"	A3		"	"
			156							2.7 V					"	A4		"	"
			157								2.7 V				"	A5		"	"
			158									2.7 V			"	A6		"	"
			159										2.7 V		"	A7		"	"
			160											2.7 V	"	A8		"	"
			161												"	B8		"	"
			162												"	B7		"	"
			163												"	B6		"	"
			164												"	B5		"	"
			165												"	B4		"	"
			166												"	B3		"	"
			167												"	B2		"	"
			168												"	B1		"	"

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L Test no.	13 B8	14 B7	15 B6	16 B5	17 B4	18 B3	19 B2	20 B1	21 $\overline{G}$	22 SEL BA	23 CLK BA	24 V_{CC}	Measured terminal	Test Limits Min	Test Limits Max	Unit
1 Tc = 25°C	I_{IH2}	3010	115												5.5 V	CAB		100	µA
		"	116												"	SAB		"	"
		"	117												"	DIR		"	"
		"	118												"	A1		"	"
		"	119												"	A2		"	"
		"	120												"	A3		"	"
		"	121												"	A4		"	"
		"	122												"	A5		"	"
		"	123												"	A6		"	"
		"	124												"	A7		"	"
		"	125												"	A8		"	"
		"	126	5.5 V											"	B8		"	"
		"	127		5.5 V										"	B7		"	"
		"	128			5.5 V									"	B6		"	"
		"	129				5.5 V								"	B5		"	"
		"	130					5.5 V							"	B4		"	"
		"	131						5.5 V						"	B3		"	"
		"	132							5.5 V					"	B2		"	"
		"	133								5.5 V				"	B1		"	"
		"	134									5.5 V			"	$\overline{G}$		"	"
		"	135										5.5 V		"	SBA		"	"
		"	136											5.5 V	"	CBA		"	"
	I_{OZL}		137									2.0 V			"	A1		-400	"
			138									"			"	A2		"	"
			139									"			"	A3		"	"
			140									"			"	A4		"	"
			141									"			"	A5		"	"
			142									"			"	A6		"	"
			143									"			"	A7		"	"
			144									"			"	A8		"	"
			145	0.4 V								"			"	B8		"	"
			146		0.4 V							"			"	B7		"	"
			147			0.4 V						"			"	B6		"	"
			148				0.4 V					"			"	B5		"	"
			149					0.4 V				"			"	B4		"	"
			150						0.4 V			"			"	B3		"	"
			151							0.4 V		"			"	B2		"	"
			152								0.4 V	"			"	B1		"	"
	I_{OZH}		153									"			"	A1		20	"
			154									"			"	A2		"	"
			155									"			"	A3		"	"
			156									"			"	A4		"	"
			157									"			"	A5		"	"
			158									"			"	A6		"	"
			159									"			"	A7		"	"
			160									"			"	A8		"	"
			161	2.7 V								"			"	B8		"	"
			162		2.7 V							"			"	B7		"	"
			163			2.7 V						"			"	B6		"	"
			164				2.7 V					"			"	B5		"	"
			165					2.7 V				"			"	B4		"	"
			166						2.7 V			"			"	B3		"	"
			167							2.7 V		"			"	B2		"	"
			168								2.7 V	"			"	B1		"	"

See footnotes at end of device type 05.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
1	I_{OS}	3011	169	GND	GND	4.5 V	GND								GND	B1	-40	-225	mA
Tc = 25°C		"	170	"	"	"		GND							"	B2	"	"	"
		"	171	"	"	"			GND						"	B3	"	"	"
		"	172	"	"	"				GND					"	B4	"	"	"
		"	173	"	"	"					GND				"	B5	"	"	"
		"	174	"	"	"						GND			"	B6	"	"	"
		"	175	"	"	"							GND		"	B7	"	"	"
		"	176	"	"	"								GND	"	B8	"	"	"
		"	177	"	"	GND	GND								"	A1	"	"	"
		"	178	"	"	"		GND							"	A2	"	"	"
		"	179	"	"	"			GND						"	A3	"	"	"
		"	180	"	"	"				GND					"	A4	"	"	"
		"	181	"	"	"					GND				"	A5	"	"	"
		"	182	"	"	"						GND			"	A6	"	"	"
		"	183	"	"	"							GND		"	A7	"	"	"
		"	184	"	"	"								GND	"	A8	"	"	"
	I_{CCH}	3005	185	"	"	4.5 V	GND	GND	GND	GND	GND	GND	GND	GND	"	V_{CC}		145	"
	I_{CCL}	"	186	"	"	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	4.5 V	"	V_{CC}		165	"
	I_{CCZ}	"	187	"	"	4.5 V	GND	GND	GND	GND	GND	GND	GND	GND	"	V_{CC}		165	"
2	Same tests, terminal conditions, and limits as subgroup 1, except T_C = +125°C and omit V_{IC} tests.																		
3	Same tests, terminal conditions, and limits as subgroup 1, except T_C = -55°C and omit V_{IC} tests.																		
7	Truth		188	B	B	A	B	B	B	B	B	B	B	B	GND	2/, 3/			
Tc = 25°C	table		189	"	"	A	A	A	A	A	A	A	A	A	"				
	tests		190	"	"	B	H	H	H	H	H	H	H	H	"				
	1/		191	"	"	B	L	L	L	L	L	L	L	L	"				
			192	"	A	A	B	B	B	B	B	B	B	B	"				
			193	A	"	"	B	B	B	B	B	B	B	B	"				
			194	B	"	"	A	A	A	A	A	A	A	A	"				
			195	A	"	"	A	A	A	A	A	A	A	A	"				
			196	B	B	B	L	L	L	L	L	L	L	L	"				
			197	"	"	"	H	H	H	H	H	H	H	H	"				
			198	"	"	"	H	H	H	H	H	H	H	H	"				
			199	"	"	"	L	L	L	L	L	L	L	L	"				
			200	"	"	"	L	L	L	L	L	L	L	L	"				
8	Same tests and terminal conditions as subgroup 7, except T_C = +125°C and T_C = -55°C.																		
9	t_{PLH1}	3003	201	IN	4.5 V	4.5 V	IN								GND	CAB to B1	2	30	ns
		(fig. 3)	202	"	"	"		IN							"	CAB to B2		"	"
		"	203	"	"	"			IN						"	CAB to B3		"	"
		"	204	"	"	"				IN					"	CAB to B4		"	"
		"	205	"	"	"					IN				"	CAB to B5		"	"
		"	206	"	"	"						IN			"	CAB to B6		"	"
		"	207	"	"	"							IN		"	CAB to B7		"	"
		"	208	"	"	"								IN	"	CAB to B8		"	"
		"	209	GND	GND	GND	OUT								"	CBA to A1		"	"
		"	210	"	"	"		OUT							"	CBA to A2		"	"
		"	211	"	"	"			OUT						"	CBA to A3		"	"
		"	212	"	"	"				OUT					"	CBA to A4		"	"
		"	213	"	"	"					OUT				"	CBA to A5		"	"
		"	214	"	"	"						OUT			"	CBA to A6		"	"
		"	215	"	"	"							OUT		"	CBA to A7		"	"
		"	216	"	"	"								OUT	"	CBA to A8		"	"

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L Test no.	13 B8	14 B7	15 B6	16 B5	17 B4	18 B3	19 B2	20 B1	21 $\overline{G}$	22 SEL BA	23 CLK BA	24 V_{CC}	Measured terminal	Test Limits Min	Test Limits Max	Unit
1	I_{OS}	3011	169								GND	GND	GND	GND	5.5 V	B1	-40	-225	mA
Tc = 25°C		"	170							GND		"	"	"	"	B2	"	"	"
		"	171						GND			"	"	"	"	B3	"	"	"
		"	172					GND				"	"	"	"	B4	"	"	"
		"	173				GND					"	"	"	"	B5	"	"	"
		"	174			GND						"	"	"	"	B6	"	"	"
		"	175		GND							"	"	"	"	B7	"	"	"
		"	176	GND								"	"	"	"	B8	"	"	"
		"	177								GND	"	"	"	"	A1	"	"	"
		"	178							GND		"	"	"	"	A2	"	"	"
		"	179						GND			"	"	"	"	A3	"	"	"
		"	180					GND				"	"	"	"	A4	"	"	"
		"	181				GND					"	"	"	"	A5	"	"	"
		"	182			GND						"	"	"	"	A6	"	"	"
		"	183		GND							"	"	"	"	A7	"	"	"
		"	184	GND								"	"	"	"	A8	"	"	"
	I_{CCH}	3005	185									"	"	"	"	V_{CC}		145	"
	I_{CCL}	"	186									"	"	"	"	V_{CC}		165	"
	I_{CCZ}	"	187									4.5 V	"	"	"	V_{CC}		165	"
2	Same tests, terminal conditions, and limits as subgroup 1, except T_C = +125°C and omit V_{IC} tests.																		
3	Same tests, terminal conditions, and limits as subgroup 1, except T_C = -55°C and omit V_{IC} tests.																		
7	Truth		188	H	H	H	H	H	H	H	H	B	B	B	4.5 V	2/, 3/			
Tc = 25°C	table		189	L	L	L	L	L	L	L	L	"	"	"	"				
	tests		190	B	B	B	B	B	B	B	B	"	"	"	"				
	1/		191	A	A	A	A	A	A	A	A	"	"	"	"				
			192	L	L	L	L	L	L	L	L	"	"	"	"				
			193	H	H	H	H	H	H	H	H	"	"	"	"				
			194	H	H	H	H	H	H	H	H	"	"	"	"				
			195	L	L	L	L	L	L	L	L	"	"	"	"				
			196	B	B	B	B	B	B	B	B	"	A	"	"				
			197	B	B	B	B	B	B	B	B	"	"	A	"				
			198	A	A	A	A	A	A	A	A	"	"	B	"				
			199	"	"	"	"	"	"	"	"	"	"	A	"				
			200	"	"	"	"	"	"	"	"	"	"	B	"				
8	Same tests and terminal conditions as subgroup 7, except T_C = +125°C and T_C = -55°C.																		
9	t_{PLH1}	3003	201								OUT	GND	GND	GND	5.0 V	CAB to B1	2	30	ns
Tc = 25°C		(fig. 3)	202							OUT		"	"	"	"	CAB to B2	"	"	"
		"	203						OUT			"	"	"	"	CAB to B3	"	"	"
		"	204					OUT				"	"	"	"	CAB to B4	"	"	"
		"	205				OUT					"	"	"	"	CAB to B5	"	"	"
		"	206			OUT						"	"	"	"	CAB to B6	"	"	"
		"	207		OUT							"	"	"	"	CAB to B7	"	"	"
		"	208	OUT								"	"	"	"	CAB to B8	"	"	"
		"	209								IN	"	4.5 V	IN	"	CBA to A1	"	"	"
		"	210							IN		"	"	"	"	CBA to A2	"	"	"
		"	211						IN			"	"	"	"	CBA to A3	"	"	"
		"	212					IN				"	"	"	"	CBA to A4	"	"	"
		"	213				IN					"	"	"	"	CBA to A5	"	"	"
		"	214			IN						"	"	"	"	CBA to A6	"	"	"
		"	215		IN							"	"	"	"	CBA to A7	"	"	"
		"	216	IN								"	"	"	"	CBA to A8	"	"	"

See footnotes at end of device type 05.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
9	t_{PHL1}	3003	217	IN	4.5 V	4.5 V	IN								GND	CAB to B1	2	45	ns
Tc = 25°C		(fig. 3)	218	"	"	"		IN							"	CAB to B2	"	"	"
		"	219	"	"	"			IN						"	CAB to B3	"	"	"
		"	220	"	"	"				IN					"	CAB to B4	"	"	"
		"	221	"	"	"					IN				"	CAB to B5	"	"	"
		"	222	"	"	"						IN			"	CAB to B6	"	"	"
		"	223	"	"	"							IN		"	CAB to B7	"	"	"
		"	224	"	"	"								IN	"	CAB to B8	"	"	"
		"	225	GND	GND	GND	OUT								"	CBA to A1	"	"	"
		"	226	"	"	"		OUT							"	CBA to A2	"	"	"
		"	227	"	"	"			OUT						"	CBA to A3	"	"	"
		"	228	"	"	"				OUT					"	CBA to A4	"	"	"
		"	229	"	"	"					OUT				"	CBA to A5	"	"	"
		"	230	"	"	"						OUT			"	CBA to A6	"	"	"
		"	231	"	"	"							OUT		"	CBA to A7	"	"	"
		"	232	"	"	"								OUT	"	CBA to A8	"	"	"
	t_{PLH2}	"	233	"	"	4.5 V	IN								"	A1 to B1	"	23	"
		"	234	"	"	"		IN							"	A2 to B2	"	"	"
		"	235	"	"	"			IN						"	A3 to B3	"	"	"
		"	236	"	"	"				IN					"	A4 to B4	"	"	"
		"	237	"	"	"					IN				"	A5 to B5	"	"	"
		"	238	"	"	"						IN			"	A6 to B6	"	"	"
		"	239	"	"	"							IN		"	A7 to B7	"	"	"
		"	240	"	"	"								IN	"	A8 to B8	"	"	"
		"	241	"	"	GND	OUT								"	B1 to A1	"	"	"
		"	242	"	"	"		OUT							"	B2 to A2	"	"	"
		"	243	"	"	"			OUT						"	B3 to A3	"	"	"
		"	244	"	"	"				OUT					"	B4 to A4	"	"	"
		"	245	"	"	"					OUT				"	B5 to A5	"	"	"
		"	246	"	"	"						OUT			"	B6 to A6	"	"	"
		"	247	"	"	"							OUT		"	B7 to A7	"	"	"
		"	248	"	"	"								OUT	"	B8 to A8	"	"	"
	t_{PHL2}	"	249	"	"	4.5 V	IN								"	A1 to B1	"	30	"
		"	250	"	"	"		IN							"	A2 to B2	"	"	"
		"	251	"	"	"			IN						"	A3 to B3	"	"	"
		"	252	"	"	"				IN					"	A4 to B4	"	"	"
		"	253	"	"	"					IN				"	A5 to B5	"	"	"
		"	254	"	"	"						IN			"	A6 to B6	"	"	"
		"	255	"	"	"							IN		"	A7 to B7	"	"	"
		"	256	"	"	"								IN	"	A8 to B8	"	"	"
		"	257	"	"	GND	OUT								"	B1 to A1	"	"	"
		"	258	"	"	"		OUT							"	B2 to A2	"	"	"
		"	259	"	"	"			OUT						"	B3 to A3	"	"	"
		"	260	"	"	"				OUT					"	B4 to A4	"	"	"
		"	261	"	"	"					OUT				"	B5 to A5	"	"	"
		"	262	"	"	"						OUT			"	B6 to A6	"	"	"
		"	263	"	"	"							OUT		"	B7 to A7	"	"	"
		"	264	"	"	"								OUT	"	B8 to A8	"	"	"
	t_{PLH3}	"	265	4/	IN	4.5 V	4/								"	SAB to B1	"	60	"
		"	266	"	"	"		4/							"	SAB to B2	"	"	"
		"	267	"	"	"			4/						"	SAB to B3	"	"	"
		"	268	"	"	"				4/					"	SAB to B4	"	"	"
		"	269	"	"	"					4/				"	SAB to B5	"	"	"
		"	270	"	"	"						4/			"	SAB to B6	"	"	"
		"	271	"	"	"							4/		"	SAB to B7	"	"	"
		"	272	"	"	"								4/	"	SAB to B8	"	"	"

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured terminal	Test Limits		Unit
			Test no.	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	SEL BA	CLK BA	V_{CC}		Min	Max	
9	t_{PHL1}	3003	217								OUT	GND	GND	GND	5.0 V	CAB to B1	2	45	ns
Tc = 25°C		(fig. 3)	218							OUT		"	"	"	"	CAB to B2	"	"	"
		"	219						OUT			"	"	"	"	CAB to B3	"	"	"
		"	220					OUT				"	"	"	"	CAB to B4	"	"	"
		"	221				OUT					"	"	"	"	CAB to B5	"	"	"
		"	222			OUT						"	"	"	"	CAB to B6	"	"	"
		"	223		OUT							"	"	"	"	CAB to B7	"	"	"
		"	224	OUT								"	"	"	"	CAB to B8	"	"	"
		"	225								IN	"	4.5 V	IN	"	CBA to A1	"	"	"
		"	226							IN		"	"	"	"	CBA to A2	"	"	"
		"	227						IN			"	"	"	"	CBA to A3	"	"	"
		"	228					IN				"	"	"	"	CBA to A4	"	"	"
		"	229				IN					"	"	"	"	CBA to A5	"	"	"
		"	230			IN						"	"	"	"	CBA to A6	"	"	"
		"	231		IN							"	"	"	"	CBA to A7	"	"	"
		"	232	IN								"	"	"	"	CBA to A8	"	"	"
	t_{PLH2}	"	233								OUT	"	GND	GND	"	A1 to B1	"	23	"
		"	234							OUT		"	"	"	"	A2 to B2	"	"	"
		"	235						OUT			"	"	"	"	A3 to B3	"	"	"
		"	236					OUT				"	"	"	"	A4 to B4	"	"	"
		"	237				OUT					"	"	"	"	A5 to B5	"	"	"
		"	238			OUT						"	"	"	"	A6 to B6	"	"	"
		"	239		OUT							"	"	"	"	A7 to B7	"	"	"
		"	240	OUT								"	"	"	"	A8 to B8	"	"	"
		"	241								IN	"	"	"	"	B1 to A1	"	"	"
		"	242							IN		"	"	"	"	B2 to A2	"	"	"
		"	243						IN			"	"	"	"	B3 to A3	"	"	"
		"	244					IN				"	"	"	"	B4 to A4	"	"	"
		"	245				IN					"	"	"	"	B5 to A5	"	"	"
		"	246			IN						"	"	"	"	B6 to A6	"	"	"
		"	247		IN							"	"	"	"	B7 to A7	"	"	"
		"	248	IN								"	"	"	"	B8 to A8	"	"	"
	t_{PHL2}	"	249								OUT	"	"	"	"	A1 to B1	"	30	"
		"	250							OUT		"	"	"	"	A2 to B2	"	"	"
		"	251						OUT			"	"	"	"	A3 to B3	"	"	"
		"	252					OUT				"	"	"	"	A4 to B4	"	"	"
		"	253				OUT					"	"	"	"	A5 to B5	"	"	"
		"	254			OUT						"	"	"	"	A6 to B6	"	"	"
		"	255		OUT							"	"	"	"	A7 to B7	"	"	"
		"	256	OUT								"	"	"	"	A8 to B8	"	"	"
		"	257								IN	"	"	"	"	B1 to A1	"	"	"
		"	258							IN		"	"	"	"	B2 to A2	"	"	"
		"	259						IN			"	"	"	"	B3 to A3	"	"	"
		"	260					IN				"	"	"	"	B4 to A4	"	"	"
		"	261				IN					"	"	"	"	B5 to A5	"	"	"
		"	262			IN						"	"	"	"	B6 to A6	"	"	"
		"	263		IN							"	"	"	"	B7 to A7	"	"	"
		"	264	IN								"	"	"	"	B8 to A8	"	"	"
	t_{PLH3}	"	265								OUT	"	"	"	"	SAB to B1	"	60	"
		"	266							OUT		"	"	"	"	SAB to B2	"	"	"
		"	267						OUT			"	"	"	"	SAB to B3	"	"	"
		"	268					OUT				"	"	"	"	SAB to B4	"	"	"
		"	269				OUT					"	"	"	"	SAB to B5	"	"	"
		"	270			OUT						"	"	"	"	SAB to B6	"	"	"
		"	271		OUT							"	"	"	"	SAB to B7	"	"	"
		"	272	OUT								"	"	"	"	SAB to B8	"	"	"

See footnotes at end of device type 05.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
9	t_{PLH3}	3003	273	GND	GND	GND	OUT								GND	SBA to A1	2	60	ns
Tc = 25°C		(fig. 3)	274	"	"	"		OUT							"	SBA to A2	"	"	"
		"	275	"	"	"			OUT						"	SBA to A3	"	"	"
		"	276	"	"	"				OUT					"	SBA to A4	"	"	"
		"	277	"	"	"					OUT				"	SBA to A5	"	"	"
		"	278	"	"	"						OUT			"	SBA to A6	"	"	"
		"	279	"	"	"							OUT		"	SBA to A7	"	"	"
		"	280	"	"	"								OUT	"	SBA to A8	"	"	"
	t_{PHL3}	"	281	4/	IN	4.5 V	4/								"	SAB to B1	"	45	"
		"	282	"	"	"		4/							"	SAB to B2	"	"	"
		"	283	"	"	"			4/						"	SAB to B3	"	"	"
		"	284	"	"	"				4/					"	SAB to B4	"	"	"
		"	285	"	"	"					4/				"	SAB to B5	"	"	"
		"	286	"	"	"						4/			"	SAB to B6	"	"	"
		"	287	"	"	"							4/		"	SAB to B7	"	"	"
		"	288	"	"	"								4/	"	SAB to B8	"	"	"
		"	289	GND	GND	GND	OUT								"	SBA to A1	"	"	"
		"	290	"	"	"		OUT							"	SBA to A2	"	"	"
		"	291	"	"	"			OUT						"	SBA to A3	"	"	"
		"	292	"	"	"				OUT					"	SBA to A4	"	"	"
		"	293	"	"	"					OUT				"	SBA to A5	"	"	"
		"	294	"	"	"						OUT			"	SBA to A6	"	"	"
		"	295	"	"	"							OUT		"	SBA to A7	"	"	"
		"	296	"	"	"								OUT	"	SBA to A8	"	"	"
	t_{PLH4}	"	297	5/	IN	4.5 V	5/								"	SAB to B1	"	"	"
		"	298	"	"	"		5/							"	SAB to B2	"	"	"
		"	299	"	"	"			5/						"	SAB to B3	"	"	"
		"	300	"	"	"				5/					"	SAB to B4	"	"	"
		"	301	"	"	"					5/				"	SAB to B5	"	"	"
		"	302	"	"	"						5/			"	SAB to B6	"	"	"
		"	303	"	"	"							5/		"	SAB to B7	"	"	"
		"	304	"	"	"								5/	"	SAB to B8	"	"	"
		"	305	GND	GND	GND	OUT								"	SBA to A1	"	"	"
		"	306	"	"	"		OUT							"	SBA to A2	"	"	"
		"	307	"	"	"			OUT						"	SBA to A3	"	"	"
		"	308	"	"	"				OUT					"	SBA to A4	"	"	"
		"	309	"	"	"					OUT				"	SBA to A5	"	"	"
		"	310	"	"	"						OUT			"	SBA to A6	"	"	"
		"	311	"	"	"							OUT		"	SBA to A7	"	"	"
		"	312	"	"	"								OUT	"	SBA to A8	"	"	"
	t_{PHL4}	"	313	5/	IN	4.5 V	5/								"	SAB to B1	"	"	"
		"	314	"	"	"		5/							"	SAB to B2	"	"	"
		"	315	"	"	"			5/						"	SAB to B3	"	"	"
		"	316	"	"	"				5/					"	SAB to B4	"	"	"
		"	317	"	"	"					5/				"	SAB to B5	"	"	"
		"	318	"	"	"						5/			"	SAB to B6	"	"	"
		"	319	"	"	"							5/		"	SAB to B7	"	"	"
		"	320	"	"	"								5/	"	SAB to B8	"	"	"
		"	321	GND	GND	GND	OUT								"	SBA to A1	"	"	"
		"	322	"	"	"		OUT							"	SBA to A2	"	"	"
		"	323	"	"	"			OUT						"	SBA to A3	"	"	"
		"	324	"	"	"				OUT					"	SBA to A4	"	"	"
		"	325	"	"	"					OUT				"	SBA to A5	"	"	"
		"	326	"	"	"						OUT			"	SBA to A6	"	"	"
		"	327	"	"	"							OUT		"	SBA to A7	"	"	"
		"	328	"	"	"								OUT	"	SBA to A8	"	"	"

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L Test no.	13 B8	14 B7	15 B6	16 B5	17 B4	18 B3	19 B2	20 B1	21 $\overline{G}$	22 SEL BA	23 CLK BA	24 V_{CC}	Measured terminal	Test Limits Min	Test Limits Max	Unit
9 Tc = 25°C	t_{PLH3}	3003 (fig. 3)	273								4/	GND	IN	4/	5.0 V	SBA to A1	2	60	ns
		"	274							4/		"	"	"	"	SBA to A2	"	"	"
		"	275						4/			"	"	"	"	SBA to A3	"	"	"
		"	276					4/				"	"	"	"	SBA to A4	"	"	"
		"	277				4/					"	"	"	"	SBA to A5	"	"	"
		"	278			4/						"	"	"	"	SBA to A6	"	"	"
		"	279		4/							"	"	"	"	SBA to A7	"	"	"
		"	280	4/								"	"	"	"	SBA to A8	"	"	"
	t_{PHL3}	"	281								OUT	"	GND	GND	"	SAB to B1	"	45	"
		"	282							OUT		"	"	"	"	SAB to B2	"	"	"
		"	283						OUT			"	"	"	"	SAB to B3	"	"	"
		"	284					OUT				"	"	"	"	SAB to B4	"	"	"
		"	285				OUT					"	"	"	"	SAB to B5	"	"	"
		"	286			OUT						"	"	"	"	SAB to B6	"	"	"
		"	287		OUT							"	"	"	"	SAB to B7	"	"	"
		"	288	OUT								"	"	"	"	SAB to B8	"	"	"
		"	289								4/	"	IN	4/	"	SBA to A1	"	"	"
		"	290							4/		"	"	"	"	SBA to A2	"	"	"
		"	291						4/			"	"	"	"	SBA to A3	"	"	"
		"	292					4/				"	"	"	"	SBA to A4	"	"	"
		"	293				4/					"	"	"	"	SBA to A5	"	"	"
		"	294			4/						"	"	"	"	SBA to A6	"	"	"
		"	295		4/							"	"	"	"	SBA to A7	"	"	"
		"	296	4/								"	"	"	"	SBA to A8	"	"	"
	t_{PLH4}	"	297								OUT	"	GND	GND	"	SAB to B1	"	"	"
		"	298							OUT		"	"	"	"	SAB to B2	"	"	"
		"	299						OUT			"	"	"	"	SAB to B3	"	"	"
		"	300					OUT				"	"	"	"	SAB to B4	"	"	"
		"	301				OUT					"	"	"	"	SAB to B5	"	"	"
		"	302			OUT						"	"	"	"	SAB to B6	"	"	"
		"	303		OUT							"	"	"	"	SAB to B7	"	"	"
		"	304	OUT								"	"	"	"	SAB to B8	"	"	"
		"	305								5/	"	IN	5/	"	SBA to A1	"	"	"
		"	306							5/		"	"	"	"	SBA to A2	"	"	"
		"	307						5/			"	"	"	"	SBA to A3	"	"	"
		"	308					5/				"	"	"	"	SBA to A4	"	"	"
		"	309				5/					"	"	"	"	SBA to A5	"	"	"
		"	310			5/						"	"	"	"	SBA to A6	"	"	"
		"	311		5/							"	"	"	"	SBA to A7	"	"	"
		"	312	5/								"	"	"	"	SBA to A8	"	"	"
	t_{PHL4}	"	313								OUT	"	GND	GND	"	SAB to B1	"	"	"
		"	314							OUT		"	"	"	"	SAB to B2	"	"	"
		"	315						OUT			"	"	"	"	SAB to B3	"	"	"
		"	316					OUT				"	"	"	"	SAB to B4	"	"	"
		"	317				OUT					"	"	"	"	SAB to B5	"	"	"
		"	318			OUT						"	"	"	"	SAB to B6	"	"	"
		"	319		OUT							"	"	"	"	SAB to B7	"	"	"
		"	320	OUT								"	"	"	"	SAB to B8	"	"	"
		"	321								5/	"	IN	5/	"	SBA to A1	"	"	"
		"	322							5/		"	"	"	"	SBA to A2	"	"	"
		"	323						5/			"	"	"	"	SBA to A3	"	"	"
		"	324					5/				"	"	"	"	SBA to A4	"	"	"
		"	325				5/					"	"	"	"	SBA to A5	"	"	"
		"	326			5/						"	"	"	"	SBA to A6	"	"	"
		"	327		5/							"	"	"	"	SBA to A7	"	"	"
		"	328	5/								"	"	"	"	SBA to A8	"	"	"

See footnotes at end of device type 05.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
9	t_{PZH2}	3003	329		GND	GND	OUT								GND	$\overline{G}$ to A1	2	55	ns
Tc = 25°C		(fig. 3)	330		"	"		OUT							"	$\overline{G}$ to A2	"	"	"
		"	331		"	"			OUT						"	$\overline{G}$ to A3	"	"	"
		"	332		"	"				OUT					"	$\overline{G}$ to A4	"	"	"
		"	333		"	"					OUT				"	$\overline{G}$ to A5	"	"	"
		"	334		"	"						OUT			"	$\overline{G}$ to A6	"	"	"
		"	335		"	"							OUT		"	$\overline{G}$ to A7	"	"	"
		"	336		"	"								OUT	"	$\overline{G}$ to A8	"	"	"
		"	337		"	4.5 V	GND								"	$\overline{G}$ to B1	"	"	"
		"	338		"	"		GND							"	$\overline{G}$ to B2	"	"	"
		"	339		"	"			GND						"	$\overline{G}$ to B3	"	"	"
		"	340		"	"				GND					"	$\overline{G}$ to B4	"	"	"
		"	341		"	"					GND				"	$\overline{G}$ to B5	"	"	"
		"	342		"	"						GND			"	$\overline{G}$ to B6	"	"	"
		"	343		"	"							GND		"	$\overline{G}$ to B7	"	"	"
		"	344		"	"								GND	"	$\overline{G}$ to B8	"	"	"
	t_{PZL2}	"	345		"	GND	OUT								"	$\overline{G}$ to A1	"	60	"
		"	346		"	"		OUT							"	$\overline{G}$ to A2	"	"	"
		"	347		"	"			OUT						"	$\overline{G}$ to A3	"	"	"
		"	348		"	"				OUT					"	$\overline{G}$ to A4	"	"	"
		"	349		"	"					OUT				"	$\overline{G}$ to A5	"	"	"
		"	350		"	"						OUT			"	$\overline{G}$ to A6	"	"	"
		"	351		"	"							OUT		"	$\overline{G}$ to A7	"	"	"
		"	352		"	"								OUT	"	$\overline{G}$ to A8	"	"	"
		"	353		"	4.5 V	4.5 V								"	$\overline{G}$ to B1	"	"	"
		"	354		"	"		4.5 V							"	$\overline{G}$ to B2	"	"	"
		"	355		"	"			4.5 V						"	$\overline{G}$ to B3	"	"	"
		"	356		"	"				4.5 V					"	$\overline{G}$ to B4	"	"	"
		"	357		"	"					4.5 V				"	$\overline{G}$ to B5	"	"	"
		"	358		"	"						4.5 V			"	$\overline{G}$ to B6	"	"	"
		"	359		"	"							4.5 V		"	$\overline{G}$ to B7	"	"	"
		"	360		"	"								4.5 V	"	$\overline{G}$ to B8	"	"	"

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L Test no.	13 B8	14 B7	15 B6	16 B5	17 B4	18 B3	19 B2	20 B1	21 $\overline{G}$	22 SEL BA	23 CLK BA	24 V_{CC}	Measured terminal	Test Limits Min	Test Limits Max	Unit
9	t_{PZH2}	3003	329								GND	IN	GND		5.0 V	$\overline{G}$ to A1	2	55	ns
Tc = 25°C		(fig. 3)	330							GND		"	"		"	$\overline{G}$ to A2	"	"	"
		"	331						GND			"	"		"	$\overline{G}$ to A3	"	"	"
		"	332					GND				"	"		"	$\overline{G}$ to A4	"	"	"
		"	333				GND					"	"		"	$\overline{G}$ to A5	"	"	"
		"	334			GND						"	"		"	$\overline{G}$ to A6	"	"	"
		"	335		GND							"	"		"	$\overline{G}$ to A7	"	"	"
		"	336	GND								"	"		"	$\overline{G}$ to A8	"	"	"
		"	337								OUT	"	"		"	$\overline{G}$ to B1	"	"	"
		"	338							OUT		"	"		"	$\overline{G}$ to B2	"	"	"
		"	339						OUT			"	"		"	$\overline{G}$ to B3	"	"	"
		"	340					OUT				"	"		"	$\overline{G}$ to B4	"	"	"
		"	341				OUT					"	"		"	$\overline{G}$ to B5	"	"	"
		"	342			OUT						"	"		"	$\overline{G}$ to B6	"	"	"
		"	343		OUT							"	"		"	$\overline{G}$ to B7	"	"	"
		"	344	OUT								"	"		"	$\overline{G}$ to B8	"	"	"
	t_{PZL2}	"	345								4.5 V	"	"		"	$\overline{G}$ to A1	"	60	"
		"	346							4.5 V		"	"		"	$\overline{G}$ to A2	"	"	"
		"	347						4.5 V			"	"		"	$\overline{G}$ to A3	"	"	"
		"	348					4.5 V				"	"		"	$\overline{G}$ to A4	"	"	"
		"	349				4.5 V					"	"		"	$\overline{G}$ to A5	"	"	"
		"	350			4.5 V						"	"		"	$\overline{G}$ to A6	"	"	"
		"	351		4.5 V							"	"		"	$\overline{G}$ to A7	"	"	"
		"	352	4.5 V								"	"		"	$\overline{G}$ to A8	"	"	"
		"	353								OUT	"	"		"	$\overline{G}$ to B1	"	"	"
		"	354							OUT		"	"		"	$\overline{G}$ to B2	"	"	"
		"	355						OUT			"	"		"	$\overline{G}$ to B3	"	"	"
		"	356					OUT				"	"		"	$\overline{G}$ to B4	"	"	"
		"	357				OUT					"	"		"	$\overline{G}$ to B5	"	"	"
		"	358			OUT						"	"		"	$\overline{G}$ to B6	"	"	"
		"	359		OUT							"	"		"	$\overline{G}$ to B7	"	"	"
		"	360	OUT								"	"		"	$\overline{G}$ to B8	"	"	"

See footnotes at end of device type 05.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
9	t_{PZH3}	3003	361		GND	IN	GND								GND	DIR to B1	2	45	ns
Tc = 25°C		(fig. 3)	362		"	"		GND							"	DIR to B2	"	"	"
		"	363		"	"			GND						"	DIR to B3	"	"	"
		"	364		"	"				GND					"	DIR to B4	"	"	"
		"	365		"	"					GND				"	DIR to B5	"	"	"
		"	366		"	"						GND			"	DIR to B6	"	"	"
		"	367		"	"							GND		"	DIR to B7	"	"	"
		"	368		"	"								GND	"	DIR to B8	"	"	"
		"	369		"	"	OUT								"	DIR to A1	"	"	"
		"	370		"	"		OUT							"	DIR to A2	"	"	"
		"	371		"	"			OUT						"	DIR to A3	"	"	"
		"	372		"	"				OUT					"	DIR to A4	"	"	"
		"	373		"	"					OUT				"	DIR to A5	"	"	"
		"	374		"	"						OUT			"	DIR to A6	"	"	"
		"	375		"	"							OUT		"	DIR to A7	"	"	"
		"	376		"	"								OUT	"	DIR to A8	"	"	"
	t_{PZL3}	"	377		"	"	4.5 V								"	DIR to B1	"	50	"
		"	378		"	"		4.5 V							"	DIR to B2	"	"	"
		"	379		"	"			4.5 V						"	DIR to B3	"	"	"
		"	380		"	"				4.5 V					"	DIR to B4	"	"	"
		"	381		"	"					4.5 V				"	DIR to B5	"	"	"
		"	382		"	"						4.5 V			"	DIR to B6	"	"	"
		"	383		"	"							4.5 V		"	DIR to B7	"	"	"
		"	384		"	"								4.5 V	"	DIR to B8	"	"	"
		"	385		"	"	OUT								"	DIR to A1	"	"	"
		"	386		"	"		OUT							"	DIR to A2	"	"	"
		"	387		"	"			OUT						"	DIR to A3	"	"	"
		"	388		"	"				OUT					"	DIR to A4	"	"	"
		"	389		"	"					OUT				"	DIR to A5	"	"	"
		"	390		"	"						OUT			"	DIR to A6	"	"	"
		"	391		"	"							OUT		"	DIR to A7	"	"	"
		"	392		"	"								OUT	"	DIR to A8	"	"	"
	t_{PHZ2}	"	393		GND	4.5 V	GND								"	$\overline{G}$ to B1	"	"	"
		"	394		"	"		GND							"	$\overline{G}$ to B2	"	"	"
		"	395		"	"			GND						"	$\overline{G}$ to B3	"	"	"
		"	396		"	"				GND					"	$\overline{G}$ to B4	"	"	"
		"	397		"	"					GND				"	$\overline{G}$ to B5	"	"	"
		"	398		"	"						GND			"	$\overline{G}$ to B6	"	"	"
		"	399		"	"							GND		"	$\overline{G}$ to B7	"	"	"
		"	400		"	"								GND	"	$\overline{G}$ to B8	"	"	"
		"	401		"	GND	OUT								"	$\overline{G}$ to A1	"	"	"
		"	402		"	"		OUT							"	$\overline{G}$ to A2	"	"	"
		"	403		"	"			OUT						"	$\overline{G}$ to A3	"	"	"
		"	404		"	"				OUT					"	$\overline{G}$ to A4	"	"	"
		"	405		"	"					OUT				"	$\overline{G}$ to A5	"	"	"
		"	406		"	"						OUT			"	$\overline{G}$ to A6	"	"	"
		"	407		"	"							OUT		"	$\overline{G}$ to A7	"	"	"
		"	408		"	"								OUT	"	$\overline{G}$ to A8	"	"	"

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L Test no.	13 B8	14 B7	15 B6	16 B5	17 B4	18 B3	19 B2	20 B1	21 $\overline{G}$	22 SEL BA	23 CLK BA	24 V_{CC}	Measured terminal	Test Limits Min	Test Limits Max	Unit
9	t_{PZH3}	3003	361								OUT	GND	GND		5.0 V	DIR to B1	2	45	ns
Tc = 25°C		(fig. 3)	362							OUT		"	"		"	DIR to B2	"	"	"
		"	363						OUT			"	"		"	DIR to B3	"	"	"
		"	364					OUT				"	"		"	DIR to B4	"	"	"
		"	365				OUT					"	"		"	DIR to B5	"	"	"
		"	366			OUT						"	"		"	DIR to B6	"	"	"
		"	367		OUT							"	"		"	DIR to B7	"	"	"
		"	368	OUT								"	"		"	DIR to B8	"	"	"
		"	369								GND	"	"		"	DIR to A1	"	"	"
		"	370							GND		"	"		"	DIR to A2	"	"	"
		"	371						GND			"	"		"	DIR to A3	"	"	"
		"	372					GND				"	"		"	DIR to A4	"	"	"
		"	373				GND					"	"		"	DIR to A5	"	"	"
		"	374			GND						"	"		"	DIR to A6	"	"	"
		"	375		GND							"	"		"	DIR to A7	"	"	"
		"	376	GND								"	"		"	DIR to A8	"	"	"
	t_{PZL3}	"	377								OUT	"	"		"	DIR to B1	"	50	"
		"	378							OUT		"	"		"	DIR to B2	"	"	"
		"	379						OUT			"	"		"	DIR to B3	"	"	"
		"	380					OUT				"	"		"	DIR to B4	"	"	"
		"	381				OUT					"	"		"	DIR to B5	"	"	"
		"	382			OUT						"	"		"	DIR to B6	"	"	"
		"	383		OUT							"	"		"	DIR to B7	"	"	"
		"	384	OUT								"	"		"	DIR to B8	"	"	"
		"	385								4.5 V	"	"		"	DIR to A1	"	"	"
		"	386							4.5 V		"	"		"	DIR to A2	"	"	"
		"	387						4.5 V			"	"		"	DIR to A3	"	"	"
		"	388					4.5 V				"	"		"	DIR to A4	"	"	"
		"	389				4.5 V					"	"		"	DIR to A5	"	"	"
		"	390			4.5 V						"	"		"	DIR to A6	"	"	"
		"	391		4.5 V							"	"		"	DIR to A7	"	"	"
		"	392	4.5 V								"	"		"	DIR to A8	"	"	"
	t_{PHZ2}	"	393								OUT	IN	"		"	$\overline{G}$ to B1	"	"	"
		"	394							OUT		"	"		"	$\overline{G}$ to B2	"	"	"
		"	395						OUT			"	"		"	$\overline{G}$ to B3	"	"	"
		"	396					OUT				"	"		"	$\overline{G}$ to B4	"	"	"
		"	397				OUT					"	"		"	$\overline{G}$ to B5	"	"	"
		"	398			OUT						"	"		"	$\overline{G}$ to B6	"	"	"
		"	399		OUT							"	"		"	$\overline{G}$ to B7	"	"	"
		"	400	OUT								"	"		"	$\overline{G}$ to B8	"	"	"
		"	401								GND	"	"		"	$\overline{G}$ to A1	"	"	"
		"	402							GND		"	"		"	$\overline{G}$ to A2	"	"	"
		"	403						GND			"	"		"	$\overline{G}$ to A3	"	"	"
		"	404					GND				"	"		"	$\overline{G}$ to A4	"	"	"
		"	405				GND					"	"		"	$\overline{G}$ to A5	"	"	"
		"	406			GND						"	"		"	$\overline{G}$ to A6	"	"	"
		"	407		GND							"	"		"	$\overline{G}$ to A7	"	"	"
		"	408	GND								"	"		"	$\overline{G}$ to A8	"	"	"

See footnotes at end of device type 05.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
9	t_{PLZ2}	3003	409		GND	4.5 V	4.5 V								GND	$\overline{G}$ to B1	2	40	ns
Tc = 25°C		(fig. 3)	410		"	"		4.5 V							"	$\overline{G}$ to B2	"	"	"
		"	411		"	"			4.5 V						"	$\overline{G}$ to B3	"	"	"
		"	412		"	"				4.5 V					"	$\overline{G}$ to B4	"	"	"
		"	413		"	"					4.5 V				"	$\overline{G}$ to B5	"	"	"
		"	414		"	"						4.5 V			"	$\overline{G}$ to B6	"	"	"
		"	415		"	"							4.5 V		"	$\overline{G}$ to B7	"	"	"
		"	416		"	"								4.5 V	"	$\overline{G}$ to B8	"	"	"
		"	417		"	GND	OUT								"	$\overline{G}$ to A1	"	"	"
		"	418		"	"		OUT							"	$\overline{G}$ to A2	"	"	"
		"	419		"	"			OUT						"	$\overline{G}$ to A3	"	"	"
		"	420		"	"				OUT					"	$\overline{G}$ to A4	"	"	"
		"	421		"	"					OUT				"	$\overline{G}$ to A5	"	"	"
		"	422		"	"						OUT			"	$\overline{G}$ to A6	"	"	"
		"	423		"	"							OUT		"	$\overline{G}$ to A7	"	"	"
		"	424		"	"								OUT	"	$\overline{G}$ to A8	"	"	"
	t_{PHZ3}	"	425		GND	IN	GND								GND	DIR to B1	"	"	"
		"	426		"	"		GND							"	DIR to B2	"	"	"
		"	427		"	"			GND						"	DIR to B3	"	"	"
		"	428		"	"				GND					"	DIR to B4	"	"	"
		"	429		"	"					GND				"	DIR to B5	"	"	"
		"	430		"	"						GND			"	DIR to B6	"	"	"
		"	431		"	"							GND		"	DIR to B7	"	"	"
		"	432		"	"								GND	"	DIR to B8	"	"	"
		"	433		"	"	OUT								"	DIR to A1	"	"	"
		"	434		"	"		OUT							"	DIR to A2	"	"	"
		"	435		"	"			OUT						"	DIR to A3	"	"	"
		"	436		"	"				OUT					"	DIR to A4	"	"	"
		"	437		"	"					OUT				"	DIR to A5	"	"	"
		"	438		"	"						OUT			"	DIR to A6	"	"	"
		"	439		"	"							OUT		"	DIR to A7	"	"	"
		"	440		"	"								OUT	"	DIR to A8	"	"	"
	t_{PLZ3}	"	441		"	"	4.5 V								"	DIR to B1	"	35	"
		"	442		"	"		4.5 V							"	DIR to B2	"	"	"
		"	443		"	"			4.5 V						"	DIR to B3	"	"	"
		"	444		"	"				4.5 V					"	DIR to B4	"	"	"
		"	445		"	"					4.5 V				"	DIR to B5	"	"	"
		"	446		"	"						4.5 V			"	DIR to B6	"	"	"
		"	447		"	"							4.5 V		"	DIR to B7	"	"	"
		"	448		"	"								4.5 V	"	DIR to B8	"	"	"
		"	449		"	"	OUT								"	DIR to A1	"	"	"
		"	450		"	"		OUT							"	DIR to A2	"	"	"
		"	451		"	"			OUT						"	DIR to A3	"	"	"
		"	452		"	"				OUT					"	DIR to A4	"	"	"
		"	453		"	"					OUT				"	DIR to A5	"	"	"
		"	454		"	"						OUT			"	DIR to A6	"	"	"
		"	455		"	"							OUT		"	DIR to A7	"	"	"
		"	456		"	"								OUT	"	DIR to A8	"	"	"

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883 method	Case L Test no.	13 B8	14 B7	15 B6	16 B5	17 B4	18 B3	19 B2	20 B1	21 $\overline{G}$	22 SEL BA	23 CLK BA	24 V_{CC}	Measured terminal	Test Limits Min	Test Limits Max	Unit
9	t_{PL22}	3003	409								OUT	IN	GND		5.0 V	$\overline{G}$ to B1	2	40	ns
Tc = 25°C		(fig. 3)	410							OUT		"	"		"	$\overline{G}$ to B2	"	"	"
		"	411						OUT			"	"		"	$\overline{G}$ to B3	"	"	"
		"	412					OUT				"	"		"	$\overline{G}$ to B4	"	"	"
		"	413				OUT					"	"		"	$\overline{G}$ to B5	"	"	"
		"	414			OUT						"	"		"	$\overline{G}$ to B6	"	"	"
		"	415		OUT							"	"		"	$\overline{G}$ to B7	"	"	"
		"	416	OUT								"	"		"	$\overline{G}$ to B8	"	"	"
		"	417								4.5 V	"	"		"	$\overline{G}$ to A1	"	"	"
		"	418							4.5 V		"	"		"	$\overline{G}$ to A2	"	"	"
		"	419						4.5 V			"	"		"	$\overline{G}$ to A3	"	"	"
		"	420					4.5 V				"	"		"	$\overline{G}$ to A4	"	"	"
		"	421				4.5 V					"	"		"	$\overline{G}$ to A5	"	"	"
		"	422			4.5 V						"	"		"	$\overline{G}$ to A6	"	"	"
		"	423		4.5 V							"	"		"	$\overline{G}$ to A7	"	"	"
		"	424	4.5 V								"	"		"	$\overline{G}$ to A8	"	"	"
	t_{PHZ3}	"	425								OUT	GND	"		5.0 V	DIR to B1	"	"	"
		"	426							OUT		"	"		"	DIR to B2	"	"	"
		"	427						OUT			"	"		"	DIR to B3	"	"	"
		"	428					OUT				"	"		"	DIR to B4	"	"	"
		"	429				OUT					"	"		"	DIR to B5	"	"	"
		"	430			OUT						"	"		"	DIR to B6	"	"	"
		"	431		OUT							"	"		"	DIR to B7	"	"	"
		"	432	OUT								"	"		"	DIR to B8	"	"	"
		"	433								GND	"	"		"	DIR to A1	"	"	"
		"	434							GND		"	"		"	DIR to A2	"	"	"
		"	435						GND			"	"		"	DIR to A3	"	"	"
		"	436					GND				"	"		"	DIR to A4	"	"	"
		"	437				GND					"	"		"	DIR to A5	"	"	"
		"	438			GND						"	"		"	DIR to A6	"	"	"
		"	439		GND							"	"		"	DIR to A7	"	"	"
		"	440	GND								"	"		"	DIR to A8	"	"	"
	t_{PLZ3}	"	441								OUT	"	"		"	DIR to B1	"	35	"
		"	442							OUT		"	"		"	DIR to B2	"	"	"
		"	443						OUT			"	"		"	DIR to B3	"	"	"
		"	444					OUT				"	"		"	DIR to B4	"	"	"
		"	445				OUT					"	"		"	DIR to B5	"	"	"
		"	446			OUT						"	"		"	DIR to B6	"	"	"
		"	447		OUT							"	"		"	DIR to B7	"	"	"
		"	448	OUT								"	"		"	DIR to B8	"	"	"
		"	449								4.5 V	"	"		"	DIR to A1	"	"	"
		"	450							4.5 V		"	"		"	DIR to A2	"	"	"
		"	451						4.5 V			"	"		"	DIR to A3	"	"	"
		"	452					4.5 V				"	"		"	DIR to A4	"	"	"
		"	453				4.5 V					"	"		"	DIR to A5	"	"	"
		"	454			4.5 V						"	"		"	DIR to A6	"	"	"
		"	455		4.5 V							"	"		"	DIR to A7	"	"	"
		"	456	4.5 V								"	"		"	DIR to A8	"	"	"

See footnotes at end of device type 05. Pins 13 thru 24 on next page.

TABLE III. Group A inspection for device type 05.

Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

Subgroup	Symbol	MIL-STD-883	Case L	1	2	3	4	5	6	7	8	9	10	11	12	Measured	Test Limits		Unit
		method	Test no.	CLK AB	SEL AB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	terminal	Min	Max	
10	t_{PLH1}																2	39	ns
Tc = 125°C	t_{PHL1}																"	59	"
	t_{PLH2}																"	30	"
	t_{PHL2}																"	39	"
	t_{PLH3}																"	78	"
	t_{PHL3}																"	59	"
	t_{PLH4}																"	59	"
	t_{PHL4}	Same tests and terminal conditions as subgroup 9, except T_C = +125°C.															"	59	"
	t_{PZH2}																"	72	"
	t_{PZL2}																"	78	"
	t_{PZH3}																"	59	"
	t_{PZL3}																"	65	"
	t_{PHZ2}																"	65	"
	t_{PLZ2}																"	52	"
	t_{PHZ3}																"	52	"
	t_{PLZ3}																"	46	"
11 T_C = -55°C	Same tests, terminal conditions, and limits as subgroup 10, except T_C = -55°C.																		

TABLE III. Group A inspection for device type 05.

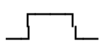
Terminal conditions (pins not designated may be high ≥ 2.0 V; low ≤ 0.7 V; or open).

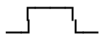
Subgroup	Symbol	MIL-STD-883	Case L	13	14	15	16	17	18	19	20	21	22	23	24	Measured	Test Limits		Unit
		method	Test no.	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	SEL BA	CLK BA	V_{CC}	terminal	Min	Max	
10	t_{PLH1}																2	39	ns
Tc = 125°C	t_{PHL1}																"	59	"
	t_{PLH2}																"	30	"
	t_{PHL2}																"	39	"
	t_{PLH3}																"	78	"
	t_{PHL3}																"	59	"
	t_{PLH4}																"	59	"
	t_{PHL4}	Same tests and terminal conditions as subgroup 9, except T_C = +125°C.															"	59	"
	t_{PZH2}																"	72	"
	t_{PZL2}																"	78	"
	t_{PZH3}																"	59	"
	t_{PZL3}																"	65	"
	t_{PHZ2}																"	65	"
	t_{PLZ2}																"	52	"
	t_{PHZ3}																"	52	"
	t_{PLZ3}																"	46	"
11 T_C = -55°C	Same tests, terminal conditions, and limits as subgroup 10, except T_C = -55°C.																		

1/ Tests shall be performed in sequence, attributes data only.

2/ H > 1.5 V; L < 1.5 V.

3/ A = 3.0 V minimum; B = 0.0 V or GND.

4/ Prior to test, bus registers are loaded high by placing 4.5 V on bus data and applying one clock pulse ( 2.5 V/5.5 V); 0 V the bus is then placed at GND for the duration of the test.

5/ Prior to test, bus registers are loaded low by placing GND on bus data and applying one clock pulse ( 2.5 V/5.5 V); 0 V the bus is then placed at 4.5 V for the duration of the test.

5. PACKAGING

5.1 Packaging requirements. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Service or Defense Agency, or within the military service's system command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature which may be helpful, but is not mandatory.)

6.1 Intended use. Microcircuits conforming to this specification are intended for original equipment design applications and logistic support of existing equipment.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, and date of the specification.

b. PIN and compliance identifier, if applicable (see 1.2).

c. Requirements for delivery of one copy of the conformance inspection data pertinent to the device inspection lot to be supplied with each shipment by the device manufacturer, if applicable.

d. Requirements for certificate of compliance, if applicable.

e. Requirements for notification of change of product or process to contracting activity in addition to notification to the qualifying activity, if applicable.

f. Requirements for failure analysis (including required test condition of method 5003 of MIL-STD-883), corrective action, and reporting of results, if applicable.

g. Requirements for product assurance options.

h. Requirements for special carriers, lead lengths, or lead forming, if applicable. These requirements should not affect the part number. Unless otherwise specified, these requirements will not apply to direct purchase by or direct shipment to the Government.

i. Requirements for "JAN" marking.

j. Packaging requirements (see 5.1).

6.3 Superseding information. The requirements of MIL-M-38510 have been superseded to take advantage of the available Qualified Manufacturer Listing (QML) system provided by MIL-PRF-38535. Previous references to MIL-M-38510 in this document have been replaced by appropriate references to MIL-PRF-38535. All technical requirements now consist of this specification and MIL-PRF-38535. The MIL-M-38510 specification sheet number and PIN have been retained to avoid adversely impacting existing government logistics systems and contractor's parts lists.

6.4 Qualification. With respect to products requiring qualification, awards will be made only for products which are, at the time of award of contract, qualified for inclusion in Qualified Manufacturers List QML-38535 whether or not such products have actually been so listed by that date. The attention of the contractors is called to these requirements, and manufacturers are urged to arrange to have the products that they propose to offer to the Federal Government tested for qualification in order that they may be eligible to be awarded contracts or purchase orders for the products covered by this specification. Information pertaining to qualification of products may be obtained from DSCC-VQ, 3990 E. Broad Street, Columbus, Ohio 43123-1199.

6.5 Abbreviations, symbols, and definitions. The abbreviations, symbols, and definitions used herein are defined in MIL-PRF-38535, MIL-HDBK-1331, and as follows:

GND ..... Ground zero voltage potential.
V_{IN} ..... Voltage level at an input terminal.
I_{IN} ..... Current flowing into an input terminal.
t_{PHZ} ..... Output disable time (of a three state output) from high level. The time between the specified reference points on the input and output voltage waveforms with the three state output changing from the defined high level to a high impedance (off) state.
t_{PLZ} ..... Output disable time (of a three state output) from low level. The time between the specified reference points on the input and output voltage waveforms with the three state output changing from the defined low level to a high impedance (off) state.
t_{PZH} ..... Output enable time (of a three state output) to high level. The time between the specified reference points on the input and output voltage waveforms with the three state output changing from a high impedance (off) state to the defined high level.
t_{PZL} ..... Output enable time (of a three state output) to low level. The time between the specified reference points on the input and output voltage waveforms with the three state output changing from a high impedance (off) state to the defined low level.

6.6 Logistic support. Lead materials and finishes (see 3.4) are interchangeable. Unless otherwise specified, microcircuits acquired for Government logistic support will be acquired to device class B (see 1.2.2), lead material and finish A (see 3.4). Longer length leads and lead forming should not affect the part number.

6.7 Substitutability. The cross-reference information below is presented for the convenience of users. Microcircuits covered by this specification will functionally replace the listed generic-industry type. Generic-industry microcircuit types may not have equivalent operational performance characteristics across military temperature ranges or reliability factors equivalent to MIL-M-38510 device types and may have slight physical variations in relation to case size. The presence of this information should not be deemed as permitting substitution of generic-industry types for MIL-M-38510 types or as a waiver of any of the provisions of MIL-PRF-38535.

Military device type	Generic-industry type
01	54LS242
02	54LS243
03	54LS245
04	54LS646
05	54LS648

6.8 Manufacturers' designation. Manufacturers' circuits, which form a part of this specification, are designated with an "X" as shown in table IV herein.

TABLE IV. Manufacturer's designator.

Device types	Circuits				
	A	B	C	D	E
	Texas Instruments	Signetics Corp.	National Semiconductor	Raytheon Co.	Motorola Inc.
01	X	X	X	X	X
02	X	X	X	X	X
03	X	X			X
04	X				
05	X				

6.9 Changes from previous issue. Asterisks are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

CONCLUDING MATERIAL

Custodians:
Army - CR
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:
DLA - CC

(Project 5962-1997)

Review activities:
Army - MI, SM
Navy - AS, CG, MC, SH, TD
Air Force - 03, 19, 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at www.dodssp.daps.mil.